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ABSTRACT

This issue of "New Directions for Community Colleges" focuses on the community college curriculum. The articles are based on a study of the college catalogs and course schedules from 164 colleges. The featured articles are: (1) "A Historical and Contemporary View of the Community College Curriculum" (Gwyer Schuyler); (2) "The Liberal Arts" (Florence B. Brawer); (3) "A Statistical Portrait of the Non-Liberal Arts Curriculum" (James Palmer); (4) "Dimensions of General Education Requirements" (Paula Zeszotarski); (5) "Interdisciplinary Studies in the Community Colleges" (Arianne Abell Walker); (6) "The Importance of Community College Honors Programs" (Charles Outcalt); (7) "English as a Second Language in the Community College Curriculum" (Elaine W. Kuo); (8) "Status of Multicultural Education in the Curriculum" (William E. Piland, Alexandria Piland, Shelly Hess); (9) "Scratching the Surface: Distance Education in the Community Colleges" (Carol A. Kozeracki); and (10) "Sources and Information: Forces Influencing the Curriculum" (Jennifer Rinella Keup). In general, the contents of this volume illustrate that although new fields of study and new modes of delivery are emerging, traditional liberal arts course offerings remain a stabilizing force. (EMH)

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Trends in Community College Curriculum

Gwyer Schuyler

EDITOR

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NEW DIRECTIONS FOR COMMUNITY COLLEGES

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Trends in Community College Curriculum

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University of California, Los Angeles

EDITOR

Number 108, Winter 1999

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Clearinghouse for Community Colleges

TRENDS IN COMMUNITY COLLEGE CURRICULUM

Gwyer Schuyler (ed.)

New Directions for Community Colleges, no. 108

Volume XXVII, number 4

Arthur M. Cohen, Editor-in-Chief

Florence B. Brawer, Associate Editor

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EDITOR'S NOTES

The community colleges of the United States enroll close to 50 percent of all students who begin higher education. Consequently, what happens at these institutions affects the course of study, the progress, and the nature of learning for nearly half of all postsecondary students. Because of both the number of students the community college serves and its unique responsiveness, its curriculum is an important and worthwhile object of study. To this end, this volume of *New Directions for Community Colleges* explores a broad range of characteristics of the community college curriculum.

The authors of this volume have studied aspects of the community college curriculum using a data set collected in 1998 by the Center for the Study of Community Colleges. The center's staff analyzed and tabulated course offerings for a national sample of community colleges. The study was informed by previous curriculum studies conducted by the center, dating back to 1975. For further information on findings from previous studies, readers are referred to the *New Directions for Community Colleges* volume entitled *Relating Curriculum and Transfer* (Cohen, 1994). As an update to this earlier volume, the present collection emphasizes trends and changes that have emerged since the last survey installment.

In the first chapter, I present a historical and contemporary overview of community college course offerings. Chapter Two, by Florence B. Brawer, looks at one of the cornerstones of the curriculum: the liberal arts. James Palmer, in Chapter Three, provides a national picture of vocational, or non-liberal arts, course offerings. Paula Zeszotarski analyzes general education requirements in Chapter Four. Chapter Five, by Arianne Abell Walker, explores the extent of interdisciplinary courses offered by community colleges. Charles Outcalt, in Chapter Six, discusses and presents the details of honors programs at community colleges. Chapter Seven, by Elaine W. Kuo, is an outline of the issues and magnitude of course offerings in English as a Second Language. In Chapter Eight, William E. Piland, Alexandria Piland, and Shelly Hess examine the impact of multiculturalism on the curriculum. Carol A. Kozieracki, in Chapter Nine, investigates the extent of courses offered via distance technologies. Jennifer Rinella Keup, in Chapter Ten, describes resources that show the internal and external factors that influence the curriculum.

From the overview chapter to the chapters focusing on specific curriculum characteristics, the information provided in this collection presents a picture of the national community college curriculum. Although each college may have its own unique curricular qualities, overarching trends in course offerings are evident across institutions. This volume provides a status report on the contemporary curriculum, with attention to changes over time. In general, the contents of this volume illustrate that although new fields of study

and new modes of delivery are emerging, traditional liberal arts course offerings remain a stabilizing force.

Gwyer Schuyler
Editor

Reference

Cohen, A. M. (ed.). *Relating Curriculum and Transfer*. New Directions for Community Colleges, no. 86. San Francisco: Jossey-Bass, 1994.

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1

Results of a new study of the community college curriculum are presented following a review of previous curriculum studies dating back to the 1920s. Major trends and emerging issues are outlined, setting the tone for more detailed discussions in subsequent chapters.

A Historical and Contemporary View of the Community College Curriculum

Gwyer Schuyler

The community college is a unique institution in the American system of higher education. Fundamentally, its curriculum is the source of that uniqueness, with such diverse areas of study as general education, vocational education, and remedial or developmental education. These areas of the curriculum are in direct response to three distinct goals of students: preparation for transfer to four-year institutions, education for employment, and improvement of basic skills not mastered in high school. Throughout its history, the community college has maintained a curricular mission of responsiveness to changing patterns in student aspirations and in the local economy. This level of responsiveness exclusively characterizes the community college and may be viewed as its greatest strength. To track changes in the curriculum, this chapter explores both historical and contemporary trends. Statistics from studies conducted early in the history of community colleges are presented first, followed by an overview of findings from the Center for the Study of Community Colleges' 1998 Curriculum Project.

Previous Curriculum Studies

A common methodology for curriculum studies, both past and present, has been the analysis of college course catalogues. Studies as early as 1918 employed this method of analyzing the community college curriculum. In his 1931 book *The Junior College*, Eells reviewed and compared several such curriculum studies dating from 1918 to 1930. He referred to McDowell's 1919 doctoral dissertation, which was the first dissertation about the community college movement. McDowell's study showed that in his sample of

nineteen public colleges, 82 percent of the course offerings were academic and 18 percent were vocational.

Eells looked in more detail at Koos's 1921 study, Whitney's 1928 study, and Hollingsworth-Eells's 1930 study. Respectively, in 1921, 1928, and 1930, the researchers found that 76 percent, 75 percent, and 73 percent of the course offerings were academic. This steady decline of academic course offerings points to the emerging significance of the nonacademic curriculum.

In the academic disciplines that made up the greatest proportion of the curriculum from 1921 to 1930, the five top academic disciplines remained the same, with natural sciences making up 20 to 24 percent of the academic curriculum, modern languages making up around 18 to 22 percent, social sciences making up 14 to 17 percent, mathematics steadily making up around 10 percent, and English making up 9 to 10 percent. However, the greatest percentage of change between 1921 and 1930 was the increase in music course offerings, which increased from 4.5 to 8.4 percent of the academic curriculum.

A closer look at nonacademic offerings in these three studies shows that in all three studies, commercial courses—which would presumably include trade and industrial training courses—made up the greatest percentage of the nonacademic curriculum, followed by engineering and home economics. The greatest percentage of change from 1921 to 1930 was seen in commercial course offerings, which decreased from 44 to 24 percent of the nonacademic curriculum. Conversely, no concurrent dramatic increases were found in any one subject area. This trend can be understood as the nonacademic curriculum beginning to diversify into different, more specialized training courses.

The five subject areas, including academic and nonacademic courses, that made up the greatest percentage of the curriculum in each of the three studies are reported in Table 1.1.

The three studies just described give a clear picture of the curriculum in public junior colleges in the 1920s and early 1930s. There are few com-

Table 1.1. Top Five Subject Areas in the Community College Curriculum in 1921, 1928, and 1930

<i>Koos's 1921 Study</i>	<i>Whitney's 1928 Study</i>	<i>Hollingsworth-Eells's 1930 Study</i>
Natural sciences (17.5 percent)	Natural sciences (15.4 percent)	Natural sciences (17.2 percent)
Modern languages (16.5)	Modern languages (14.9)	Modern languages (13.4)
Social sciences (10.8)	Social sciences (10.3)	Social sciences (12.3)
Commercial courses (10.5)	Commercial courses (9.9)	Mathematics (7.5)
Mathematics (7.6)	Mathematics (8.1)	English (7.3)

Source: Eells, 1931.

prehensive studies of the curriculum between the 1930s and 1950s. Putnam's 1951 survey of course offerings included an analysis of course catalogues from 425 public and private junior colleges. The author was specifically looking at "new-type general education courses," or courses that he evaluated as different from traditional courses. The following are some examples of courses that were newly introduced in the early 1950s; in parentheses is the percentage of the institutions in Putnam's sample that were offering this course:

- Health (44 percent)
- Music appreciation (34 percent)
- Social problems, world today (26 percent)
- History of the world (24 percent)
- Art appreciation (23 percent)
- College orientation (22 percent)
- Physical sciences survey (18 percent)
- Communication (12 percent)
- Introduction to business (10 percent)
- First aid (8 percent)
- Mental hygiene (7 percent)
- Survey of social sciences (7 percent)
- Preparation for marriage (6 percent)
- Humanities survey (5 percent)
- Work experience and student activities (4 percent)
- Choosing a vocation (3 percent)
- Great books (2 percent)

In the 1920s and 1930s, the curriculum was largely limited to traditional subjects, such as those reported in the studies conducted by Koos, Whitney, and Hollingsworth-Eells. Putnam's work illustrates that by 1951 junior colleges were beginning to incorporate new and varied courses into their curricula.

Another area of the curriculum that was increasingly expanded during the 1950s was remedial education. Koos (1970) stated that the earliest remedial education efforts were seen in the 1930s. Koos also described how remedial reading education as an institutional objective increased in momentum through the 1940s into the 1950s and that by 1956, three-fourths of 418 institutions reported having remedial reading programs.

Along with the emergence of new-type general education courses and remedial courses, the other major change in the community college curriculum during the 1950s was the blossoming of occupational courses. Medsker (1960) studied the percentage of colleges that offered courses in different occupational fields in 1955-56. Following are selected occupational course offerings, followed by the percentage of colleges in the sample that offer courses in those fields:

- Business (67 percent)
- Agriculture (27 percent)
- Engineering aide (26 percent)
- Homemaking (26 percent)
- Auto, diesel mechanics (25 percent)
- Nursing (22 percent)
- Electronics (21 percent)
- Radio, TV (19 percent)
- Machine shop (18 percent)
- Secretarial (17 percent)
- Laboratory technician training (17 percent)
- Commercial art (15 percent)
- Electrical shop (13 percent)
- Welding (12 percent)
- Photography (10 percent)
- Graphic arts (10 percent)
- Drafting, design (10 percent)
- Dental assisting (10 percent)
- Aviation (8 percent)
- Air conditioning, refrigeration (8 percent)
- Building trades (7 percent)
- Peace officer training (7 percent)
- Printing (7 percent)
- Merchandising (6 percent)
- Sheet metal (6 percent)
- Elementary education (6 percent)
- Cosmetology (6 percent)
- Recreational leadership (6 percent)
- Carpentry (6 percent)
- Mill and cabinet (5 percent)
- Clothing, tailoring (4 percent)
- Medical secretary (4 percent)
- Music (3 percent)
- Architecture (3 percent)
- Fine arts (3 percent)
- Woodwork (3 percent)
- Restaurant, hotel management (2 percent)
- Petroleum (2 percent)
- Nursery education (2 percent)
- Journalism (2 percent)

Thornton (1960, 1966, 1972) picked up where Medsker left off and presented the status of occupational curricula in 1958-59, 1962, and 1965-66 in three separate editions of his book *The Community Junior College*. From these studies, business education emerges as the dominant occupational field

of the period, with around half of all community colleges offering general and specialty business courses. Close to 20 percent of the institutions offered specialty courses in engineering technology. The fields of data processing and nursing grew, whereas the percentage of colleges offering home economics courses decreased. Police training was not coded in the first study, but it doubled in percentage between the second and third study. Both art and music had a much stronger presence in the curriculum at the time of the first survey; one possible explanation could be that these two fields became less known as occupational subjects and were instead offered as liberal arts courses.

Past and Present Studies by the Center for the Study of Community Colleges

Continuing in the tradition of earlier curriculum studies, the Center for the Study of Community Colleges, under the direction of Arthur M. Cohen, has undertaken a periodic national survey of the community college curriculum. Beginning in 1975, the survey has involved the classification and counting of courses offered at a selection of community colleges and the calculation of estimated student enrollments in certain academic areas. The next section describes the methodology of the present study and compares its findings with earlier studies.

Sampling and Methodology in the Present Study. Spring college catalogues and schedules were requested from approximately 950 public community colleges. The mailings in the sample were subsequently reviewed and those that were incomplete (that is, only the catalogue or the schedule was sent) or those that did not include the schedule for the spring 1998 semester were eliminated. In total, there were 459 usable sets of college catalogues and schedules. The sets received were compared to those that were included in the 1991 survey. Sixty-four of the sample of 459 had been included in the 1991 sample; this group will be called the *matched sample*.

A sample of 164 sets was included in the 1998 survey, which is the same sample size as was used in the prior survey. Along with the matched sample, another one hundred cases were needed. A random sample of one hundred was selected from the remaining cases because college size was an area of interest for the researchers. The original sample of 459 colleges was divided into three subsamples of small, medium, and large. Small colleges were designated as those with student enrollments of less than or equal to 2,748. Medium colleges were those with enrollments between 2,749 and 6,140. Large colleges were those with enrollments greater than or equal to 6,141.

The 164 college catalogues and schedules were reviewed and coded based on a previously developed coding scheme that was tailored by the elimination of some coding areas and the addition of others. Course sections offered for credit were tallied and subsequently entered into SPSS, a statistical analysis application. Laboratories and tutorials were not counted,

except in the case of remedial courses. Each college's coding sheet was reviewed by another member of the coding team in order to minimize coding errors and maximize coding uniformity.

In the second phase of the study, requests for course enrollment data were sent to each of the 164 institutions. In total, 81 colleges submitted course-by-course enrollment printouts. Cross-referenced with the coded college schedules, enrollment figures from every fifth course on the enrollment printout were coded, tallied, and summed across the college sample to arrive at an estimated enrollment within each coding category. Table 1.2 summarizes the number of institutions in the total sample and in the enrollment sample by size.

Findings. According to the 1998 Curriculum Project, 54 percent of the community college curriculum was made up of the liberal arts. In 1986 and 1991, respectively, 52 and 56 percent of the curriculum was found to be in the liberal arts. These statistics show the stability of the curriculum in terms of the liberal arts and the non-liberal arts; that is, slightly more than half of the curriculum has remained in the liberal arts over the last thirteen years. The percentage of course sections in the total sample that were remedial, as defined by the institutions, was 6.7 percent. A more meaningful representation of remedial courses was found in the disciplines of English and math. Table 1.3 compares findings on the percentage of remedial courses in English and math in 1986, 1991, and 1998.

Based on the review of catalogue descriptions, the percentage of courses that were transferable to public, in-state four-year institutions was estimated. This task proved to be challenging because colleges take individual approaches to reporting this information in their catalogues. Although some colleges, such as those in California, clearly report the transferability status

Table 1.2. Description of Colleges in the Sample, by Size

	<i>Small</i>	<i>Medium</i>	<i>Large</i>	<i>Total</i>
Number of institutions in sample	52	54	58	164
Number of institutions in enrollment sample	22	31	28	81

Table 1.3. Percentage of English and Math Courses That Were Remedial in 1998, 1991, and 1986

	1986	1991	1998
English	37	31	29
Math	32	16*	32

* Cohen and Ignash (1994) attribute the dip in percentage to the fact that more remedial courses were beginning to be offered via laboratory format and were not counted in the 1991 study.

for each course offered, other colleges do not present this information. Courses at those colleges that did not directly report the transfer status of courses were assumed to be transferable if they were included in a transfer-oriented associate degree program. Overall, 74 percent of liberal arts courses and 34 percent of non-liberal arts courses were found to be transferable. Although these findings are based on colleges' printed catalogues and schedules, further investigation should involve analysis of actual course transfer agreements between community colleges and four-year institutions (see Cohen and Ignash, 1994; Striplin, 1999).

Student Enrollment by Academic Discipline. Table 1.4 compares the overall percentage of student enrollment by academic discipline in the community college liberal arts curriculum. The greatest increase in percentage of enrollment is found in computer science. In the 1991 study, student enrollment in computer science accounted for 2.31 percent. This percentage jumped to 4.14 percent in the 1998 sample. This increase is understandable in light of the skyrocketing need for workers skilled in computer technology.

The greatest decrease in percentage of enrollment—albeit small in magnitude—is found in engineering sciences. In the 1991 sample, student enrollment in engineering accounted for 1.61 percent of the total curriculum, whereas in 1998 it accounted for only .48 percent. This decrease may be partly explained by differences in coding. In 1998, courses that served vocational purposes were strictly coded in the non-liberal arts category, engineering technology. Nonetheless, these findings suggest that the engineering curriculum may be becoming more vocationally oriented, with less emphasis on preparing students to transfer to engineering programs at four-year institutions.

Of the categories that account for the greatest percentage of the curriculum, English remained stable at about 20 percent, with only a slight decrease. Similarly, the category with the next largest enrollment, introductory and intermediate mathematics, also remained stable at around 12 to 13 percent of the curriculum. The small increase in enrollment in this category further exhibits that the community college curriculum remains a strong provider of introductory mathematics skills.

Community colleges have the reputation of maintaining small class sizes. This study supports that claim. No marked increases in class size were found in the present study relative to the 1991 study. In fact, small decreases in average class sizes were found in many academic categories. For example, in the major subject areas, English class sizes in 1998 were down by 3 students, from 21 in 1991. Likewise, introductory and intermediate mathematics, biology, and psychology class sizes were all smaller in 1998 compared to 1991. It must be noted, however, that these slight decreases in class size may partially be accounted for by the use of different calculation methods in 1991 and 1998. In 1991, average class size was calculated based on reports from institutional contacts. In 1998, average class size was compiled

Table 1.4. Percentages of Total Student Enrollment and Average Class Size for All Liberal Arts Areas

<i>Discipline</i>	<i>1991 percent</i>	<i>1998 percent</i>	<i>1991 Class Size</i>	<i>1998 Class Size</i>
<i>Humanities</i>				
Art history/appreciation	1.33	1.45	28	28
Cultural anthropology	0.49	0.49	30	26
Foreign languages	7.24	5.82	20	19
History	6.23	6.46	31	29
Interdisciplinary humanities	1.48	0.83	35	25
Literature	1.90	2.21	23	22
Fine and performing arts	0.47	0.54	28	29
Music history/appreciation	1.03	1.38	27	27
Philosophy and logic	2.25	2.07	29	26
Political science	3.91	3.26	29	26
Religious studies	0.22	0.34	35	23
Social and ethnic studies	0.21	0.21	26	18
English	20.70	20.26	21	19
<i>Fine and Performing Arts</i>				
Dance	0.43	0.37	16	16
Music	1.51	1.66	11	12
Theater	0.31	0.57	14	15
Visual arts	2.38	2.31	11	12
<i>Social Sciences</i>				
Physical anthropology	0.44	0.25	23	21
Economics	2.73	2.75	27	26
Physical geography	0.31	0.40	32	24
Interdisciplinary social sciences	0.47	0.48	20	24
Psychology	7.15	7.30	30	27
Sociology	4.03	4.18	31	28
<i>Sciences</i>				
Biology	6.43	7.03	26	24
Chemistry	2.05	2.00	20	19
Earth and space sciences	1.34	1.35	32	27
Engineering sciences	1.61	0.48	15	13
Geology	0.38	0.46	24	22
Interdisciplinary sciences	0.68	0.33	27	17
Physics	1.26	0.84	19	16
<i>Math and Computer Science</i>				
Introductory/intermediate mathematics	12.04	12.79	24	23
Advanced mathematics	1.38	1.27	20	17
Applied/technological mathematics	0.65	0.62	18	16
Math for other majors	1.57	1.55	23	21
Computer science	2.31	4.14	23	20
Statistics	1.08	1.57	27	23
	100.00	100.00		

from institutional printouts that designated the numbers of students enrolled in each class. In some cases, the printouts denoted when courses were canceled; but in many cases, courses were still open even if only one to three students were enrolled. These courses with low enrollment may very well account for the overall lower class sizes.

Number of Course Sections Offered. When tallies of course sections were compared with results from the 1991 study, a ranking of academic disciplines based on the number of course sections offered showed great similarities. In Table 1.5, the rankings show that in both 1991 and 1998 the three major disciplines with the greatest number of course sections offered were the humanities, English, and math and computer science. In both 1991 and 1998, these three disciplines accounted for 36 percent of the curriculum. One major shift was in technical education, which shifted up in its ranking from seventh to fourth place. In contrast, business and office shifted down from fourth to fifth place. All in all, other than some slight changes and shifts, the curriculum has remained dominated by the same disciplines.

The number of students enrolled in the 164 colleges surveyed in 1991 was comparable to the number of students enrolled in the colleges surveyed in 1998. Yet when the course offerings were counted, the 1998 sample offered approximately thirty thousand more courses. The 1998 study counted distance courses and internship and field study courses; the 1991 study did not. This accounts, however, for only a small number of the extra courses. One conclusion that can be drawn from this comparison is that colleges seem to be offering more courses without experiencing an increase in student enrollment overall. This may also contribute to the decrease in class sizes.

Summary

Studies dating as far back as the 1910s have reviewed community college course offerings. By comparing survey results, overall shifts in curricular emphasis emerge. In the early days of community colleges, more than three quarters of the curricular offerings were academic, or what in more contemporary studies has been deemed liberal arts. This fraction has been reduced to around half, yet it has remained stable for at least the last thirteen years. Natural sciences, modern languages, and social sciences made up the greatest proportion of the curriculum in the 1920s and 1930s, while in the 1990s the humanities, English, and math and computer science top the list of course sections offered.

The midcentury saw the introduction of nontraditional liberal arts courses, remedial courses, and a broader range of non-liberal arts courses. Koos (1970) documented "new-type" courses, which now infuse each college's course schedule. In addition, a strong remedial program, especially in English and math, has grown to account for sizeable percentages of the total courses in these subject areas.

Table 1.5. Percentage of Major Discipline Areas in Total Curriculum

	1991 # of Sections	1991 percent of Total	1998 # of Sections	1998 percent of Total	1998 Ranking	1991 Ranking
Humanities	14,034	13.42	17,828	12.82	1	1
English	13,327	12.75	16,905	12.15	2	2
Math/computer sciences	11,176	10.69	15,694	11.28	3	3
Technical education	8,229	7.87	11,886	8.55	4	7
Business/office	11,156	10.67	11,158	8.02	5	4
Personal skills/avocational	8,643	8.27	9,650	6.94	6	5
Sciences	8,031	7.68	9,536	6.86	7	8
Trade/industry	8,420	8.05	9,423	6.78	8	6
Social sciences	6,966	6.66	9,056	6.51	9	9
Health	4,641	4.44	8,040	5.78	10	11
Fine/performing arts	5,671	5.42	7,447	5.35	11	10
Internships/practica	N/A	N/A	4,356	3.13	12	N/A
Education	1,147	1.10	2,396	1.72	13	13
Engineering technologies	889	0.85	1,753	1.26	14	14
Criminal justice	N/A	N/A	1,405	1.01	15	N/A
Marketing	1,523	1.46	1,317	0.95	16	12
Agriculture (non-liberal arts)	529	0.51	808	0.58	17	15
Other	77	0.07	294	0.21	18	17
Military science	N/A	N/A	131	0.09	19	N/A
Home economics	106	0.10	N/A	N/A	N/A	16
Total	104,565	100.0	139,083	100.0		

In the last two decades, the overall trend appears to be an increase in both the range of subject areas offered and the number of course sections offered. Both the range of curricular offerings and the number of course sections offered are directly related to the size of the college, with a greater range of subject areas and more sections offered at large colleges.

In general, the non-liberal arts course offerings continue to grow in specificity as the demands of the job market become more specific. Yet in the liberal arts, only limited growth has been found in emerging fields such as interdisciplinary offerings and social and ethnic studies.

As an overview, this article has offered only a glimpse of the historical and contemporary status of the community college curriculum. The rest of this volume provides a more in-depth investigation of specific curriculum characteristics. Some of the major findings of the subsequent chapters are as follows:

- Findings from this study support the conclusion that the liberal arts are highly stable components of the community college curriculum. Slight changes are found in the percentage of courses offered within different liberal arts disciplines. For example, the number of psychology and remedial English offerings have increased while the number of engineering courses and physical anthropology courses have decreased. Overall, the liberal arts curriculum at community colleges remains a centerpiece in the American system of higher education, providing general education to the majority of students, both those destined to transfer and those who are pursuing vocational interests.
- In the non-liberal arts curriculum, which encompasses all courses that are not found in the liberal arts disciplines, there are certain subject areas in which all institutions offer courses and there are also subject areas in which institutions provide specialized training in response to unique needs of the community and local economy. The most commonly found non-liberal arts courses are business and office skills, marketing and distribution, health sciences, computer applications, and education.
- In terms of general education requirements, the majority of institutions require students to take courses within a distribution of given competencies or subject areas. This is most prevalent in transfer-oriented degree programs. Nontransfer, vocationally oriented programs often instead require students to follow a more lock-step core set of courses, thus limiting student choice in course selection. Basic composition and mathematical skills are common to all general education requirements, along with general life and physical sciences and social studies courses. Reflecting new and important changes in societal values, requirements in multicultural education and computer literacy are being adopted by community colleges, and will most likely become more common.
- Eighty-seven percent of community colleges offer interdisciplinary courses—defined as courses that span three disparate academic disciplines—

in the areas of humanities, social sciences, and life and physical sciences. Although many colleges offer interdisciplinary courses, they typically offer only a small number of these.

- Fewer than half of the institutions offer honors programs, as indicated in their catalogues. Most commonly, college grades are used to determine a student's entrance into the program. Institutions with larger enrollments and a large percentage of transfer courses are more likely to have honors programs, and those institutions with large remedial programs are less likely to have honors programs.

- The percentage of community colleges offering English as a Second Language (ESL) has steadily increased. Current findings place the percentage of colleges offering ESL at 55 percent, versus 40 percent in the 1991 study. Institutions with large student enrollments are more likely to have ESL programs. As would be expected, the study results showed that institutions located in regions of the United States that have large immigrant populations also have large ESL programs.

- Twenty-six percent of the colleges offer courses in ethnic studies compared to 15 percent in 1975 and 9 percent in 1991. Courses in women's studies were offered by 17 percent of the sample institutions, whereas in 1975 only three percent offered such courses. The presence of multicultural courses varies by college size in that large institutions are more likely to offer these courses. Overall, enrollment data reveals that enrollment in multicultural education courses make up 20 percent of enrollment in the community college curriculum.

- Distance education (defined as courses taught by television, the Internet, two-way video, or correspondence) accounts for 1.7 percent of the total community college curriculum and is found most commonly in the social sciences in the liberal arts curriculum and in business in the occupational curriculum. At the institutional level, only 16 percent of those schools that offer any distance courses offer fewer than five courses. Thus, even though the overall percentage of distance education in the community college curriculum may be low, in relation to the entire system of higher education, those community colleges that have incorporated distance technologies into their curricula are offering more courses in this format than other institutional types.

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2

This chapter discusses the findings of six curriculum studies conducted by the Center for the Study of Community Colleges, emphasizing changes in the liberal arts curriculum. It deals with the five major disciplines that compose the liberal arts as they operate in community colleges today: the humanities, English, mathematics and computer science, science, social science, and the fine and performing arts.

The Liberal Arts

Florence B. Brawer

Among the various courses offered by the American community college, the liberal arts constitute the longest standing category, representing for many people the foundation of the curriculum. A part of all functions of the colleges (preparation for transfer, general education, preparation for the workforce and upgrading occupational skills, remedial offerings, and community and continuing education), the liberal arts also serve as the center of the college's mission, linking elementary and secondary with higher education.

Conceived by the early Grecian scholars, who emphasized rhetoric, language, and discourse, these constructs were codified in the universities of medieval Europe as embodying the best in human thought. The disciplines of ancient grammar, rhetoric, logic, music, astronomy, geometry, and arithmetic, all thought to be essential for the learned individual, were joined at the end of the nineteenth century in both Europe and the United States by modern languages, natural science, and philosophy. Later, modern language, literary criticism, art, and history also became part of the liberal arts; and by the early twentieth century, this coterie of offerings was considered to be the basic curriculum of the university, essential for all those who would profess to be educated.

In the early colonial colleges, the liberal arts became the foundation of study for those aspiring to the clergy and the law (Cohen, 1998). As colleges expanded in size and in goals for their students, this classical curriculum was expanded and modified accordingly. The aftermath of World War II saw renewed interest in mathematics and the sciences, and the more recent (late 1980s through the 1990s) emphases on gender and ethnicity saw further alteration of what is now a fairly solid and consistent curriculum. The central curriculum embracing the liberal arts still operates. "This

power of tradition . . . has kept the liberal arts intact as the core of undergraduate education" (Cohen, 1998, p. 450).

When the community college came on the American educational scene in the early years of the twentieth century, the liberal arts were incorporated as one of its essential functions. Thus, a large number of individuals who might not otherwise experience college life, and consequently engage in these basic studies, were able to become involved in higher education. Here again, modification prevails, with some colleges emphasizing certain courses, neglecting others, or occasionally watering down others. In many instances, the liberal arts became intertwined with general education, the college function that introduces a practical element, becoming a "pragmatic incarnation of the classical curriculum. They represent an integral feature of transfer education" (VanderKelen, 1994, p. 32), while they also relate to other functions of the community college—from occupational education through remedial and developmental programs. There now exists a basic consistency in the liberal arts and a general expectation that they will remain vital.

At the same time, it seems useful to examine the liberal arts in terms of the number of college offerings, classes, and enrollments that operate specifically in the community college today. Over the past twenty-three years, from 1975 to 1998, the Center for the Study of Community Colleges has conducted a series of studies of the undergraduate curriculum in these institutions in general and in the humanities and liberal arts in particular, examining the relative strengths and weaknesses of the various college offerings (Cohen and Brawer, 1986–1987, 1996; Cohen and Ignash, 1994).

This chapter discusses the findings from these six studies, emphasizing the changes that have occurred during these years. It deals with the five major disciplines that constitute the liberal arts as they operate in community colleges today: the humanities, English composition, mathematics, science, social science, and the fine and performing arts. It analyzes the courses actually offered and enrollments in those courses, and where requisite data are available, it compares findings over the years examined. The rationale for this series of studies and the methodology employed are presented in Chapter One of this volume.

To gain a perspective from which to view the liberal arts in terms of the current total community college curriculum, Table 2.1 presents data for 1991 and 1998.

A comparison of the number of offerings over this eight-year span suggests that the liberal arts remain fairly consistent, a conclusion that reiterates VanderKelen's (1994) statement that both courses and enrollments were much the same during the 1975–1991 period he studied. Humanities, English, and mathematics and computer science were first, second, and third in both 1991 and 1998. Changes in rank that do occur represent only one or two points.

The following tables present information about the six areas that constitute the liberal arts today. The Center for the Study of Community Colleges' series of curriculum studies were conducted in 1975, 1977/78, 1983,

Table 2.1. Ranked Percentage of Total Credit Curriculum by Major Discipline Areas: 1991 and 1998

Major Discipline Subject Areas	1991 Number of Sections	1991 Percentage of Total	1991 Ranking	1998 Number of Sections	1998 Percentage of Total	1998 Ranking
Humanities*	14,034	13.42	1	17,828	12.82	1
English*	13,327	12.75	2	16,905	12.15	2
Math/computer sciences*	11,176	10.69	3	15,694	11.28	3
Technical education	8,229	7.87	7	11,886	8.55	4
Business/office	11,156	10.67	4	11,158	8.02	5
Personal skills/avocational	8,643	8.27	5	9,650	6.94	6
Sciences*	8,031	7.68	8	9,536	6.86	7
Trade/industry	8,420	8.05	6	9,423	6.78	8
Social sciences*	6,966	6.66	9	9,056	6.51	9
Health	4,641	4.44	11	8,040	5.78	10
Fine/performing arts*	5,671	5.42	10	7,447	5.35	11
Internships/practica	N/A	N/A	N/A	4,356	3.13	12
Education	1,147	1.10	13	2,396	1.72	13
Engineering technologies	889	0.85	14	1,753	1.26	14
Criminal justice	N/A	N/A	N/A	1,405	1.01	15
Marketing	1,523	1.46	12	1,317	0.95	16
Agriculture (non-liberal arts)	529	0.51	15	808	0.58	17
Other	77	0.07	17	294	0.21	18
Military science	N/A	N/A	N/A	131	0.09	19
Home economics	106	0.10	16	N/A	N/A	N/A
Total	104,565	100.0		139,083	100.0	

* Liberal arts courses or portions of courses fitting into the liberal arts.

1986, 1991, and 1998; examination and comparison of the data reveal the current status of affairs.

The Humanities

The various disciplines listed as composing the humanities are drawn from National Endowment for the Humanities categories. Table 2.2 shows that more colleges in every discipline offered humanities instruction in 1998 than in previous years. These increases range from 4 percent (history and literature) to 180 percent (social and ethnic studies). The consistent increase in the percentage of colleges offering specific humanities course indicates that the state of the humanities in community colleges is healthy indeed. Within the humanities, the greatest increases between 1991 and 1998 were in music appreciation, religious studies, and social and ethnic studies. These changes may be explained in part by sampling. In 1991, twenty technical community colleges were included in the sample whereas in 1998 only fifteen were included. This difference would account for a fraction of the percentage increase in the number of colleges offering courses in the humanities, but it does not explain it entirely.

A plausible reason for the increase may well be that students generally are aware of the importance of a broad education. Whereas people in previous years may have prepared for a specific lifetime career, changes in the marketplace are now rampant and the average person will hold a number of jobs during a lifetime. Therefore, one needs to be literate and have knowl-

Table 2.2. Humanities Instruction in Two-Year Colleges

Humanities Subject Areas	Percentage of Colleges Offering Courses						Percent Change '91-'98
	1975 n = 156	1977 n = 178	1983 n = 173	1986 n = 95	1991 n = 164	1998 n = 164	
Cultural anthropology	44	46	44	48	47	53	13
Art history/appreciation	70	68	76	76	80	88	10
Foreign languages	82	80	82	78	87	96	10
Cultural geography	26	22	34	N/A	24	27	13
History	90	92	93	92	92	96	4
Literature	91	92	93	87	92	96	4
Interdisciplinary	28	28	38	52	48	59	23
Music appreciation	74	70	69	63	71	90	27
Philosophy	66	64	68	76	79	87	10
Political science	89	94	90	86	90	98	9
Religious studies	26	28	24	^a	22	42	91
Social/ethnic studies	22	21	10	^b	15	42	180

^a Included in Philosophy; ^b included in History and Literature

edge of the humanities as well as to be trained for a career. Indeed, interest in a broad educational base—available in the community colleges—rather than a narrow preparation for a specific job is one of the major distinctions between community colleges and proprietary schools. Some colleges, in fact, have established guidelines for a core curriculum for both academic transfer and vocational students (Rosenwasser, 1995; Romano, 1995).

Another approach to understanding these studies of the humanities is to look at student enrollments and average class size (see Table 2.3). On a percentage basis, the greatest growth in student enrollment can be found in religious studies and in music history and appreciation. These two areas, however, compose a very small portion of the overall curriculum. Of the courses that enroll a greater number of students, history increased slightly, surpassing the number of students enrolled in foreign language courses, which dropped by almost 20 percent. Despite the extensive literature generated and the interest expressed in classes taught across disciplinary boundaries, the number of courses in interdisciplinary studies was reduced by 45 percent in 1998.

In general, class size in the humanities has dropped somewhat over the last seven years. Average class size in 1998 was twenty-five and in 1991 it was twenty-eight. In a few fields, class size dropped—notably religious studies, interdisciplinary humanities, and social and ethnic studies. In the case of social and ethnic studies, the percentage of students enrolled has not changed and in religious studies the percentage has actually increased. Therefore, the drop in class size in general may be accounted for by an increase in the number of class sections offered.

Table 2.3. Percentage of Total Student Enrollment (Duplicate Head Count) in the Liberal Arts and Average Class Size in the Humanities

Humanities Subject Areas	1991 Percentage	1998 Percentage	Percentage Change	1991 Class Size	1998 Class Size
Art History/appreciation	1.33	1.45	9.0	28	28
Cultural anthropology	0.49	0.49	0.0	30	26
Foreign languages	7.24	5.82	-19.6	20	19
History	6.23	6.46	3.7	31	29
Interdisciplinary humanities	1.48	0.83	-44.9	35	25
Literature	1.90	2.21	16.3	23	22
Fine/performing arts	0.47	0.54	14.9	28	29
Music history/appreciation	1.03	1.38	34.0	27	27
Philosophy and logic	2.25	2.07	-8.0	29	26
Political science	3.91	3.26	-16.6	29	26
Religious studies	0.22	0.34	54.5	35	23
Social/ethnic studies	0.21	0.21	0.0	26	18

Mathematics and Computer Science

The increase in mathematics courses offered in community colleges has been slight, but only because the percentages have always been high—ranging from all of the colleges offering some mathematics courses to a “low” of 72 percent holding classes in applied and technology-related mathematics.

As Table 2.4 indicates, the percentage of colleges offering math courses increased from 1978 to 1998. The exception here is math for other majors, which dropped from 95 to 87 percent. Not surprisingly, given today's climate of electronic awareness, computer science shows the greatest gain, jumping from a low of 71 percent in 1978 to a high of 97 percent in 1998.

Introductory and intermediate mathematics represents 63.2 percent of all mathematics courses offered in the 164 community colleges examined, and 12 percent of all liberal arts courses. Other math courses, when measured against other liberal arts courses, range from 0.9 percent for applied and technology-related mathematics to 3.6 percent for computer science. As with the 1991 data analysis, the drop in colleges offering applied and technology-related courses may be attributed to the drop in engineering courses offered by the colleges. Indeed, if computer sciences were eliminated from the roster of math courses, these offerings would be reduced considerably more.

Slight changes in total student enrollment (duplicate head count) and average class size suggest drops in both enrollment and class size (Table 2.5). Class size has decreased slightly for all areas of mathematics. However, as shown in Table 2.1, the number of mathematics and computer science sections offered increased from 11,176 to 15,694 during these seven years, which may account for the smaller class sizes. Particularly notable are the dramatic increases in the percentage enrolled in computer science and statistics courses.

The Sciences

The sciences are integral to the transfer, general education, and occupational preparatory functions of the colleges. The introduction of the sciences during the American revolutionary period broadened the offerings of the classical curriculum (Rudolph, 1962), an expansion that continued at an accelerated rate after World War II. The sciences today are most directly related to the classical curriculum through physics, but other disciplines (biology, chemistry, engineering, earth and space science, and environmental science) developed from the advancement of knowledge stimulated by the scientific method.

Unlike mathematics, which has remained relatively stable over the years, the sciences fluctuate in terms of percentages of colleges offering courses and the percentage of enrollment (Table 2.6). Biology remains the most popular science subject, offered in 95 percent of the colleges in 1991, as it was in 1978, and in 100 percent of colleges in 1998. Chemistry, ranging from 93 to 97 percent over the years, and physics, with a range of 87 to 96 percent, have

Table 2.4. Mathematics and Computer Science Instruction in Two-Year Colleges

Mathematics and Computer Science Subject Areas	Percentage of Colleges Offering Courses				Percentage of Enrollment			
	1978 n = 175	1986 n = 95	1991 n = 164	1998 n = 164	1991 All Liberal Arts Courses	1998 All Liberal Arts Courses	1991 All Mathematics Courses	1998 All Mathematics Courses
Introductory/intermediate mathematics	97	97	98	100	12.0	12.4	63.2	59.3
Advanced mathematics	86	87	86	95	1.4	1.2	7.2	5.7
Applied/technology-related mathematics	67	64	57	72	0.7	0.9	3.4	4.3
Computer science	71	88	90	97	2.3	3.6	12.2	17.2
Math for other majors	95	77	81	87	1.6	1.6	8.2	7.7
Statistics	75	78	79	93	1.1	1.3	5.7	6.2

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Table 2.5. Percentage of Total Student Enrollment (Duplicate Head Count) in the Liberal Arts and Average Class Size in Mathematics

<i>Math and Computer Science Subject Areas</i>	<i>1991 Percentage</i>	<i>1998 Percentage</i>	<i>Percentage Change</i>	<i>1991 Class Size</i>	<i>1998 Class Size</i>
Introductory/intermediate mathematics	12.04	12.79	6.2	24	23
Advanced mathematics	1.38	1.27	-8.0	20	17
Applied/technological mathematics	0.65	0.62	-4.6	18	16
Mathematics for other majors	1.57	1.55	-1.3	23	21
Computer science	2.31	4.14	79.2	23	20
Statistics	1.08	1.57	45.4	27	23

Table 2.6. Science Instruction in Two-Year Colleges

<i>Percentage of Colleges Offering Courses</i>					<i>Percentage of Enrollment</i>			
<i>Science Subject Areas</i>	<i>1978</i>	<i>1986</i>	<i>1991</i>	<i>1998</i>	<i>1991 All Liberal Arts Courses</i>	<i>1998 All, Liberal Arts Courses</i>	<i>1991 All Science Courses</i>	<i>1998 All Science Courses</i>
Agriculture science/ natural resources	61	52	16	29	N/A	N/A	N/A	N/A
Biology	100	98	95	100	6.4 ^a	6.7 ^a	46.6 ^a	52.8 ^a
Chemistry	97	96	93	97	2.0	2.1	15.0	16.5
Engineering	81	72	76	62	1.6	0.5	11.7	3.9
Earth/space science and/or environ- mental science	79	72	50	69	1.3	1.6	9.8	12.6
Physics	89	92	87	96	1.3	1.0	9.2	7.9
Other (geology, integrated)	N/A	N/A	N/A	N/A	1.1	0.	7.8	6.3

^a Percentages reflect aggregated biology and agriculture/natural science enrollment

also been stable. Conversely, agriculture and natural resources show considerable fluctuation over the twenty-year span. Engineering courses, as noted earlier, have dropped considerably, from 81 percent in 1978 to 62 percent twenty years later. Earth and space science and environmental science also demonstrate considerable variation: a low of 50 percent in 1991, a high of 79 percent in 1978, and 69 percent in 1998.

When science instruction is viewed in terms of total offerings of liberal arts, some growth is apparent in certain fields for both 1991 and 1998. Biol-

ogy represents the greatest enrollment in the sciences, accounting for 52.8 percent of all science courses in 1998. Chemistry and physics exceed the other sciences but are both relatively low in comparison with all the liberal arts and the other sciences.

Reporting data from the 1991 project, VanderKelen (1994) suggests that the decrease in the number of colleges offering engineering courses may reflect a gradual decrease in engineering enrollment or "a shift of engineering courses to upper-division programs of four-year institutions" (p. 37). We see, then, that opportunities exist for community colleges to serve the engineering community by offering retraining and continuing education in technological areas. These institutions might well investigate such new possibilities.

Table 2.7 reflects the decreases in engineering sciences and in interdisciplinary science between 1991 and 1998: -70.2 and -51.5 percent respectively. Slight increases occurred in biology, earth and space science, engineering science, and geology. Consistent with the mathematics data, class sizes were also reduced.

The Social Sciences

The social sciences trace their roots to philosophy, a basic component of the original classical curriculum. Today they include physical and cultural anthropology, psychology, economics, sociology, and somewhat less frequently, interdisciplinary social sciences. Following the guidelines established by the National Endowment for the Humanities, cultural anthropology is included among the humanities courses, and physical anthropology is part of the social sciences.

Over the twenty-year span of the Center for the Study of Community Colleges' curriculum studies, the social sciences remain amazingly consistent (Table 2.8). Economics, psychology, and sociology are offered in nearly every college; physical anthropology and interdisciplinary social science hover around the 60 percent mark, ranging between 53 and 67 percent. Sixty-five percent of the colleges offered these courses in 1998.

Table 2.7. Percentage of Total Student Enrollment (Duplicate Head Count) in the Liberal Arts and Average Class Size in the Sciences

Science Subject Areas	1991 Percentage	1998 Percentage	Percentage Change	1991 Class Size	1998 Class Size
Biology	6.43	7.03	9.3	26	24
Chemistry	2.05	2.00	-2.4	20	19
Earth/space sciences	1.34	1.35	0.7	32	27
Engineering sciences	1.61	0.48	-70.2	15	13
Geology	0.38	0.46	21.1	24	22
Interdisciplinary sciences	0.68	0.33	-51.5	27	17
Physics	1.26	0.84	-33.3	19	16

Table 2.8. Social Science Instruction in Two-Year Colleges

Social Science Subject Areas	Percentage of Colleges Offering Courses				Percentage of Enrollment			
	1978	1986	1991	1998	1991 All Liberal Arts Courses	1998 All Liberal Arts Courses	1991 All Social Science Courses	1998 All Social Science Courses
Physical anthropology and/or inter- disciplinary social science	67	53	64	65	1.2	1.0	8.1	6.9
Psychology	99	100	98	100	7.2	7.3	47.3	49.3
Economics	99	97	93	98	2.7	2.8	18.0	16.7
Sociology	100	95	94	99	4.0	4.2	26.2	27.1

Social science courses represent only a slight percentage of total student enrollment in the liberal arts, with the exception of psychology (Table 2.9). Other than in physical anthropology, which decreased by 43 percent, and in physical geography, which increased by 29 percent, changes have been so small that they simply suggest relative stability.

Some disparity appears, however, in terms of average class size. Most classes were reduced in size from 1991 to 1998. As with the other classes in the liberal arts, class size remained stable or dropped slightly between 1991 and 1998. The two exceptions are physical anthropology and interdisciplinary social sciences. Given the small number of courses offered in these areas, a few anomalous section enrollments can skew the average.

English

In his 1994 article, VanderKelen did not tabulate the percentage of enrollments in either English or the performing arts. He did, however, indicate that community college English courses include composition, reading, speech, and business communications. These courses are important to all functions of the colleges: transfer, general education, work preparation, and remediation. Overwhelmingly, English is the dominant single discipline, maintaining an even profile and ranging in content from developmental to the esoteric. In 1991, enrollment in English classes accounted for 20.7 percent of all enrollments; this dropped slightly to 20.3 percent in 1998. Classes in this area tend to be on average smaller than those in other areas, but this may reflect the differences in courses; introductory English certainly attracts more students than a seminar in *Beowulf*. Average class size decreased from twenty-one to nineteen between 1991 and 1998.

In 1991, 100 percent of the colleges offered English courses; approximately 20 percent of all the liberal arts offerings were English, and "more than

Table 2.9. Percentage of Total Student Enrollment (Duplicate Head Count) in the Liberal Arts and Average Class Size in the Social Sciences

<i>Social Sciences Subject Areas</i>	<i>1991 Percentage</i>	<i>1998 Percentage</i>	<i>Percentage Change</i>	<i>1991 Class Size</i>	<i>1998 Class Size</i>
Economics	2.73	2.75	0.7	27	26
Interdisciplinary social sciences	0.47	0.48	2.1	20	4
Physical anthropology	0.44	0.25	-43.2	23	21
Physical geography	0.31	0.40	29.0	32	24
Psychology	7.15	7.30	2.1	30	27
Sociology	4.03	4.18	3.7	31	28

one in every five enrollments in liberal arts courses is an English course" (VanderKelen, 1994, p. 33). While writing classes were offered most frequently, VanderKelen (1994) found that 84 percent of the colleges surveyed listed remedial English; 97 percent, standard-level composition; and 75 percent, advanced composition. There has been considerable stability in the percentage of English courses offered as measured by the CSCC Projects (1980: 21.8 percent; 1991: 22.5 percent; 1998: 22.0 percent). (See Table 2.10.)

Fine and Performing Arts

One of the greatest shifts occurred in fine and performing arts instruction. Between 1991 and 1998, the percentage of colleges offering fine and performing arts classes increased in all areas tracked, most notably in dance and theater (Table 2.11). The tremendous growth in the number of colleges offering these classes has not been matched by a commensurate increase in enrollment (Table 2.12). Enrollment has been relatively stable, with the exception of theater, in which it has almost doubled.

Past, Present, and Future

In reviewing the status of the liberal arts over the last twenty-five years, the Center for the Study of Community Colleges has actually compiled a retrospective of this important portion of the curriculum in the American community college. Some minor trends may be discerned—greater or lighter emphasis on certain courses. For example, psychology and religious studies have increased, engineering and physical anthropology have decreased. These movements, however, do not connote a major change. Rather, the liberal arts appear alive and well and amazingly stable. In all, they represent more than 50 percent of the community colleges' offerings nationwide.

At the same time, however, if one examines these curricular figures in terms of the goals that colleges establish, questions are inevitable. Should community colleges put more emphasis on occupational courses so that students might be better prepared to enter the world of work, to change jobs,

Table 2.10. Percentages of Colleges Offering English Composition Courses in 1991 and 1998

<i>English Subject Areas</i>	<i>1991</i>	<i>1998</i>
English composition	97	99
Reading	N/A	91
Speech/communications	N/A	98
Business English/communications	20	93

Table 2.11. Percentage of Colleges Offering Fine and Performing Arts Courses in 1991 and 1998

<i>Fine and Performing Arts Subject Areas</i>	<i>1991</i>	<i>1998</i>	<i>Percentage Change</i>
Dance	24	38	58.3
Music	70	80	14.3
Theater	47	67	42.6
Visual arts	82	88	7.3

Table 2.12. Percentage of Total Student Enrollment (Duplicate Head Count) in the Liberal Arts and Average Class Size in the Fine and Performing Arts

<i>Subject Areas</i>	<i>1991 Percentage</i>	<i>1998 Percentage</i>	<i>Percentage Change</i>	<i>1991 Class Size</i>	<i>1998 Class Size</i>
Dance	0.43	0.37	-14.0	16	16
Music	1.51	1.66	9.9	11	12
Theater	0.31	0.57	83.9	14	15
Visual arts	2.38	2.31	-2.9	11	12

and to meet varied requirements for a new type of labor force? Should they attempt to educate "the whole person" by emphasizing the humanities and other liberal arts courses in their general education curriculum? Or should the liberal arts become the central focus of the colleges—exceeding the 50 percent range in current offerings? Do recent events in the United States—for example, acts of violence in Oklahoma, Colorado, Texas, and unfortunately across much of the nation—suggest that ethics and morality should become major disciplines in community colleges, or at other levels of schooling? If people had greater exposure to philosophy and its ethics components, would their attitudes and actions be affected in any way? Would they be able to envision a wider world? These are questions that should be asked by college administrators and faculty alike, and they must be answered in terms of the total thrust of the colleges, in their goals and plans for the future.

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3

Community colleges vary considerably in terms of the proportion of the curriculum devoted to courses outside the arts and sciences, the relative weight within the non-liberal arts curriculum that is given to subject areas, and the extent to which credits earned in this part of the curriculum transfer to baccalaureate-granting institutions.

A Statistical Portrait of the Non-Liberal Arts Curriculum

James Palmer

The curriculum outside the liberal arts and sciences traces its roots to the emergence of the university at the end of the 1800s. Career-related courses in business, journalism, library science, and other fields became common as universities became responsible for preparing new entrants to the professions, a task formerly undertaken through apprenticeships or other forms of on-the-job training. Physical education classes and elective courses offering other types of self-improvement also emerged as the formal curriculum absorbed much of what had previously been the domain of the extracurriculum.

Today, instruction outside the arts and sciences is a well-established part of the community college curriculum. It has been strengthened over time by the career-education leanings of community college advocates such as Parnell (1985) and Zeiss (1997), and by government subsidies, such as those provided by the 1963 Vocational Education Act and its subsequent amendments. But the strength of instruction outside the arts and sciences lies also in its full acceptance into the undergraduate canon at both two-year and four-year colleges; approximately 57 and 44 percent, respectively, of the associate's and bachelor's degrees awarded nationwide in 1994-95 were in fields other than the arts and sciences (Snyder, Hoffman, and Geddes, 1998). As many observers have pointed out, it is a mistake to associate community college instruction outside the arts and sciences solely with terminal education ending at the associate's degree (Palmer, 1990; Cohen and Ignash, 1994).

What does the non-liberal arts curriculum look like today? This chapter answers that question, drawing on a national survey of 164 randomly

selected community colleges. During the course of the survey, staff from the Center for the Study of Community Colleges (CSCC) used a specially designed subject taxonomy to analyze class sections offered by the colleges in the spring of 1998. (See Chapter One for a discussion of the study's methodology and taxonomy.) The study replicated, with slight modifications in the taxonomy, a 1991 CSCC survey that also involved a random sample of 164 colleges (Ignash, 1993; Cohen and Ignash, 1994). Findings reveal a high level of stability in the curriculum over time, with few changes between 1991 and 1998. They also offer insights into variations between colleges in the proportion of the curriculum devoted to courses outside the arts and sciences, in the types of courses that predominate in the non-liberal arts curriculum, and in the degree to which courses transfer to baccalaureate-granting institutions.

Relative Size of the Non-Liberal Arts Curriculum

Findings from both the 1991 and 1998 surveys show that the non-liberal arts curriculum accounts for slightly less than 50 percent of the total community college curriculum. Of all the class sections offered by the colleges participating in the 1998 study, 45 percent fell into those parts of the CSCC taxonomy representing coursework outside the arts and sciences. This is comparable to the finding of 43 percent in 1991.

The proportion of the non-liberal arts curriculum, however, varies significantly among institutions. Among the 164 colleges participating in the 1998 study, the proportion of the curriculum accounted for by class sections outside the arts and sciences ranges from 19 percent to 77 percent; the mean and median both stand at 46 percent. The reasons for these variations are not easily pinned down. The differing histories of state community college systems may play a contributing role in some cases. For example, of the six technical institutes in the sample from Wisconsin and Indiana, five ranked above the median figure of 46 percent. But of the twenty-six sampled community colleges from California, a state with a community college system long associated with collegiate education, only seven ranked above the median. Still, the exceptions in both instances—the one Midwest technical college below the median and the seven California community colleges above the median—point to the importance of local nuances, in addition to state influences, that account for variations in the curricular emphasis of individual colleges.

Specific Courses in the Non-Liberal Arts Curriculum

Data in Table 3.1, drawn from the 1998 survey, show the proportion of community colleges offering non-liberal arts courses in specific subject areas. Courses in business and office skills, marketing and distribution, health sciences, computer applications, and education are ubiquitous; they are found

Table 3.1. Percentage of Community Colleges Offering Non-Liberal Arts Courses, by Subject Area, Spring 1998

<i>Subject Area</i>	<i>Percentage of Colleges Offering Courses in Respective Subjects</i>
Agriculture	45
Business/office	
Entrepreneurism/small business	70
Other business/office	100
Marketing/distribution	90
Health	
Nursing and other health professions	96
General/other	91
Technical education	
Internet	66
Computer applications	99
Systems/networks	87
Computer maintenance	49
Other computer	24
Fire/environmental technology/hazardous materials	50
Commercial art/design/media	74
Engineering/science technology	79
Trade/industry	
Industrial	88
Other	46
Architecture/drafting/CAD	80
Hospitality	48
Personal skills/avocational	
Recreation/physical education	86
Study skills/guidance	88
Other	75
Education	92
Criminal justice	85
Internships/practica	96
Military science	12
Other	25

at more than 90 percent of the colleges participating in the 1998 survey. Other fields are not as commonly represented. For example, courses dealing with fire fighting, environmental technology, or hazardous materials are offered by only 50 percent of the colleges. Agriculture, mostly confined to rural areas, is part of the curriculum at only 24 percent of the two-year institutions nationwide. Finally, there are idiosyncratic offerings, pigeonholed in the "other" category, that represent areas of instruction that are unique to individual colleges or to relatively small numbers of colleges. Examples include courses in gunsmithing, taxidermy, or coal mining.

Another approach to gauging the disciplinary makeup of the non-liberal arts curriculum is to examine the percentage distribution of its component parts. This distribution has changed little between 1991 and 1998.

Table 3.2. Non-Liberal Arts (NLA) Disciplinary Fields, as a Percentage of the Total Community College Curriculum and as a Percentage of the Total Non-Liberal Arts Curriculum, 1991 and 1998

Subject Area	1991		1998	
	% of NLA Curriculum	% of Total Curriculum	% of NLA Curriculum	% of Total Curriculum
Agriculture	1.2	0.5	1.3	0.6
Business/office	24.6	10.7	17.8	8.0
Marketing/distribution	3.4	1.5	2.1	0.9
Health	10.2	4.4	12.9	5.8
Technical education	18.2	7.9	19.0	8.5
Engineering/science technology	2.0	0.8	2.8	1.3
Trade/industry	18.6	8.1	15.0	6.8
Personal skills/avocational	19.1	8.3	15.4	6.9
Education	2.5	1.1	3.8	1.7
Criminal justice	N/A	N/A	2.2	1.0
Internships/practica	N/A	N/A	7.0	3.1
Home economics	0.2	0.01	N/A	N/A
Military science	N/A	N/A	0.2	0.1
Other	0.2	0.07	0.5	0.2

Note: Data for 1991 are from Ignash, 1993, pp. 5–6. The 1991 survey folded criminal justice courses into the “technical education” category and military science into the “other” category, and internships/practica were not counted at all. The 1998 survey eliminated the home economics courses, folding them into the “other” category.

As the data in Table 3.2 reveal, only three categories in the CSCC taxonomy—business and office, health, and personal skills and avocational courses—reflect net changes of 2 percent or more in terms of the proportion of the non-liberal arts class sections they compose. In both 1991 and 1998, the same five categories account for 80 percent of the non-liberal arts class sections: business and office, health, technical education, trade and industry, and personal skills and avocational courses. The remaining categories account for a relatively small portion of the non-liberal arts curriculum nationwide.

Aggregate data, however, should not mask the fact that institutions vary considerably in terms of the distribution of courses within the non-liberal arts curriculum. For example, data from the 1998 study show that the proportion of the non-liberal arts curriculum made up of class sections related to nursing and other health occupations ranged from 0 percent to 36 percent; the average was 6.3 percent (Table 3.3). Similarly, computer application courses accounted for 0 to 26 percent of the non-liberal arts curriculum; the average stood at 5.3 percent (Table 3.3). These variations reflect the effects of area labor markets, faculty proclivities, competition from surrounding institutions, and other local influences on the size and scope of curricula at individual community colleges.

Table 3.3. Percentage Distribution of Disciplinary Fields Within the Total NLA Curriculum of Each of the Sampled Community Colleges, 1998

Subject Area	Percentage of the NLA Curriculum in Each of the Sampled Colleges (n = 164) Accounted for by Respective Subject Areas		
	Mean	Range	Standard Deviation
Agriculture	1.4	0-21	2.7
Business/office			
Entrepreneurism/small business	0.6	0-6	0.8
Other business and office	17.9	4-46	7.2
Marketing/distribution	2.0	0-10	1.8
Health			
Nursing and other health professions	9.6	0-36	6.3
General/other	3.7	0-15	3.1
Technical education			
Internet	1.0	0-6	1.2
Computer applications	10.4	0-26	5.3
Systems/networks	2.0	0-15	2
Computer maintenance	0.5	0-11	1.2
Other computer	0.4	0-6	1.1
Fire/environmental technology/ hazardous materials	0.9	0-8	1.5
Commercial art/design/media	2.8	0-23	3.5
Engineering/science technology	2.7	0-20	2.8
Trade/industry			
Industrial	8.8	0-33	7.5
Other	1.5	0-16	2.9
Architecture/drafting/CAD	2.8	0-15	2.4
Hospitality	1.8	0-46	4.2
Personal skills/avocational			
Recreation/physical education	10.0	0-46	9.2
Study skills/guidance	3.0	0-19	2.9
Other	1.9	0-24	2.7
Education	4.0	0-19	3
Criminal justice	2.6	0-12	2.3
Internships/practica	6.9	0-67	7
Military science	0.2	0-11	1
Other	0.5	0-14	1.7

Transferability of Non-Liberal Arts Courses

Of the non-liberal arts class sections offered by the 164 two-year colleges in the 1998 survey, 34 percent were designated by the colleges as transferable to baccalaureate-granting institutions. The comparable figure for liberal arts class sections—74 percent—was considerably higher. But the data nonetheless support the fact that the community college transfer function is not limited to academic study in the arts and sciences. Nor is vocational education, which constitutes a fair share of coursework outside the arts and sciences,

necessarily of sub-baccalaureate character. As Cohen and Ignash (1994, p. 29) state, "Except for trades and industry courses, the concept of terminal education should be laid to rest."

Further analysis of the data reinforces this point, showing rates of transferability that are considerably higher than the overall mean. For example, the proportion of non-liberal arts class sections labeled as transferable range from a low of 11 percent in engineering and science technology to a high of 78 percent for classes related to recreation and physical education (Table 3.4). Furthermore, individual colleges vary considerably in terms of the extent to which courses outside the arts and sciences can be transferred. For

Table 3.4. Percentage of Community College Class Sections in the Non-Liberal Arts That are Transferable to Four-Year Colleges, by Subject Area, Spring 1998

<i>Subject Area</i>	<i>Percentage of Class Sections That Are Transferable</i>
Agriculture	26
Business/office	
Entrepreneurism/small business	27
Other business/office	42
Marketing/distribution	37
Health	
Nursing and other health professions	24
General/other	39
Technical education	
Internet	25
Computer applications	34
Systems/networks	24
Computer maintenance	14
Other computer	39
Fire/environmental technology/ hazardous materials	23
Commercial art/design/media	50
Engineering/science technology	11
Trade/Industry	
Industrial	12
Other	16
Architecture/drafting/CAD	27
Hospitality	
Personal skills/avocational	19
Recreation/physical education	79
Study skills/guidance	24
Other	31
Education	54
Criminal justice	36
Internships/practica	35
Military science	14
Other	25

each of the non-liberal arts categories in the CSCC taxonomy used to classify courses by subject, college responses concerning the proportion of class sections eligible for transfer range from 0 to 100 percent. The proportion of all non-liberal arts classes deemed transferable by the participating institutions range, by college, from 0 to 94 percent.

These data suggest that course transferability is as much a function of the particular institution offering the course as it is a function of the course subject area. Indeed, analysis of the 1998 data reveals a positive statistical correlation ($r = .397, p < .01$) between the proportion of liberal arts courses deemed transferable by a college and the proportion of non-liberal arts courses deemed transferable. What promotes the transferability of one part of the curriculum promotes the other part. The transfer of credit earned by students in courses outside the arts and sciences must be understood in this institutional context.

Summary

From a national, aggregate perspective, the non-liberal arts curriculum can be described as a continuum. On one end is a core set of courses that are offered at 90 percent or more of the community colleges. These include classes in business and office skills, marketing and distribution, health sciences, computer applications, and education. On the other end is a set of less commonly found courses offered by 25 percent or less of the colleges. These classes represent the unique contributions of individual institutions and often defy easy classification. Indeed, these courses, with the exception of those in agriculture and military science, were pigeonholed during the 1998 survey into catch-all "other" categories. In between are courses in such areas as criminal justice, personal and avocational skills, trade and industry, engineering and technical science, and agriculture.

Institutional variations in the size and scope of the non-liberal arts curriculum reveal additional continua. Individual community colleges array themselves in terms of the proportion of the curriculum devoted to courses outside the arts and sciences, the relative weight within the non-liberal arts curriculum that is given to subject areas, and the extent to which credits earned in this part of the curriculum transfer to baccalaureate-granting institutions. All of these variations beg the question of institutional context. Studies of what accounts for differences between colleges in the roles played by the non-liberal arts and sciences are a natural follow-up to this statistical analysis and will add greatly to our knowledge of the community college enterprise.

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4

What purposes of general education do community colleges communicate to their students? How do these specific philosophies relate to the generally accepted objectives of general education programs? This chapter addresses these questions and provides an analysis of the design and content of general education requirements in community colleges.

Dimensions of General Education Requirements

Paula Zeszotarski

Every generation of educational reformers makes its mark on general education requirements. Today educators face a society that is more ethnically diverse than previous generations. In addition, digital information technology has expanded in all sectors of our economy and culture, from entertainment to medical research. Such social and political changes also shape the community college curriculum.

General education (GE) for all students in community colleges ensures educational equity. "General education must not be optional, lest the gulf between the social classes in America be accentuated as members of the elite group learn to control their environment, while the lower classes are given career education and training in basic skills" (Cohen and Brawer, 1996, p. 353). Transfer students complete the majority of their GE requirements at community colleges. Also, community college GE programs may be the only exposure to core knowledge that terminal associate degree seekers receive. Thus analysis of GE in transfer degree programs and in nontransfer degree programs is equally important.

This chapter explores the following questions using data gathered under the 1998 Curriculum Project of the Center for the Study of Community Colleges (CSCC):

- What GE goals do community colleges attempt to communicate to their students?
- How do these specific philosophies relate to the generally accepted objectives of GE programs?
- How prevalent are different forms of GE requirements (core curriculum,

free elective system, distributional requirements) in occupational and academic associate's degree programs?

- How are the new curricular dimensions of multiculturalism and computer literacy manifested?

Purposes and Types of General Education

This literature review describes the purposes of GE and the types of GE requirement structures as well as the dimensions in knowledge and skills that are becoming more common in the community college curriculum.

While the aims of liberal education and GE are now often conflated, traditionally they were separate aspects of the curriculum. The purpose of liberal education is to provide "knowledge for its own sake" while GE "must lead to the ability to do, act," and make intelligent decisions in everyday life (Cohen and Braver, 1996, pp. 342-3). Some commentators combine the objectives of liberal education and GE. Derek Bok (1986) identifies some "common aims" or intended outcomes of a liberal education in terms of knowledge as well as skills: "Undergraduates should acquire an ample store of knowledge, both in depth, by concentrating on a particular field, and in breadth, by devoting attention to several different disciplines. They should gain an ability to communicate with precision and style, a basic competence in quantitative skills, . . . and a capacity to think clearly and critically" (p. 54). In addition to enhancing skills, GE programs attempt to address the breadth dimension of the liberal education (Levine, 1978) by introducing students to the major disciplines of knowledge. Experience in a wide array of disciplines allows undergraduates the opportunity to acquire both quantitative and qualitative skills, and thus adds to their experiences in the major concentration.

In practice, the objectives of liberal education and GE are often combined under the rubric of an institution's GE requirements. The continuum of GE programs stretches from highly prescribed core curricula to nondirective distributional requirement systems to free elective systems. Variation exists within each of these general categories.

The core curriculum is the most prescribed form of GE. "Core GE programs are common, tightly knit, yet broad and often interdisciplinary series of courses usually required of all students" (Levine, 1978, p. 9). The "Harvard Red Book" (Committee on the Objectives of a General Education in a Free Society, 1945) defined the model for most core curricula. This GE program required all Harvard undergraduates to engage in three common courses—one each in the humanities, the social sciences, and the sciences. Other institutions, such as St. John's College, prescribe an entire four-year curriculum of "great books" for all students. Curricula with a core requirement thus vary in the proportion of core courses in the entire undergraduate program.

The rationale for core curricula is the preservation, perpetuation and transmission of the views and values of important thinkers, writers, scien-

tists, and social leaders (Ratcliff, 1997). The idea that students well versed in the universal truths of our culture will be able to use this material in a critical approach to current problems forms the basis of this philosophy. Core curricula can thus accommodate not only canonical knowledge but also the fundamental works of feminism, and ethnic and area studies (Ratcliff, 1997). Only a limited proportion (5 percent) of four-year institutions practice this form of GE (Astin, 1993).

While only a small proportion of institutions employ core curricula, distributional requirement systems account for more than 90 percent of GE programs in four-year institutions (Astin, 1993) and in the majority of community colleges (Cohen and Brawer, 1996). These systems specify a number of courses to be taken within certain academic disciplines. For example, to fulfill the GE requirements, students must take two courses in each of the major academic divisions: social sciences, arts, humanities, and physical sciences. Unlike core curricula, distributional requirement programs do not prescribe a sequence of specific courses. These systems vary in their degree of prescription but usually require combinations of certain courses, options from preselected course lists, and a limited number of electives in designated disciplines (Levine, 1978). Other systems require few specific courses but allow students to select courses at any level among the designated areas. These programs also vary in the proportion of GE requirements to overall course load. The rationale for distributional plans lies in providing for curricular breadth for the heterogeneous undergraduate populations found in today's colleges and universities. Distributional requirements in GE are characteristic of an educational system that tries to be all things to all people. "The result [of adopting a distributional plan] was a bureaucratic and impersonal higher education system catering to rapidly increasing numbers of students" (Ratcliff, 1997, p. 145). Community colleges' policies of open access make them particularly susceptible to this form of "curricular chaos" (Cohen and Brawer, 1996).

A free elective program is the least prescriptive form of GE. The student is responsible for designing a program of electives across disciplines. At four-year institutions that employ this system, students tend to specialize early and thus do not gain intradisciplinary breadth or experience with other disciplines (Levine, 1978).

Emerging Dimensions of General Education

Two emerging aspects of GE requirements are multicultural studies and computer literacy. The inclusion of multicultural courses or objectives is an appropriate component of GE because these aspects of the curriculum include acquiring fundamental knowledge of other cultures as well as skills in putting such knowledge into practice. Ronald Takaki, author of *A Different Mirror: A History of Multicultural America* (quoted in Reid, 1995), defines the objectives of multicultural education as follows: "The multicultural class

is the place where students can understand their larger community, and figure out what it means to be an American. It is a place where we study the question, How do our paths intersect?" Goals for student learning in multicultural courses include developing an appreciation of the "knowledge traditions within the contemporary United States, providing an understanding of the role of racial, cultural and ethnic differences in the formation of our national identity, evaluating diverse views of the interrelationship of self and community, exploring the individual students' own cultural heritage, and developing the ability to read and compare cultures through their cultural expressions" (Olguin and Schmitz, 1997, p. 443). To ensure that students develop a basic understanding of the issues raised in a pluralistic society, Takaki advocates that colleges establish a multicultural requirement for graduation (Reid, 1995). According to a 1992 survey (Reid, 1995), only 20 percent of community colleges have a multicultural GE requirement while 48 percent of four-year institutions have this requirement.

GE programs attempt to make students familiar with core knowledge as well as with basic skills. As our society becomes increasingly dependent on computer technology, the abilities to access, manipulate, and evaluate electronic information sources and devices surface as the new basic skills for community college students in both academic and occupational programs. Definitions of computer literacy vary as colleges attempt to integrate these new skills into the existing curricular structure. At Florida's Miami-Dade Community College, administrators conducted informal interviews with faculty in order to develop educational objectives for a basic technology skills workshop for students. Respondents indicated that all students should be able to use a word processor, including proofreading functions such as spelling and grammar check, to use computer tutorials, and to use CD-ROMs for research (Lever-Duffy, 1993). With the increase in access to the Internet, definitions of computer literacy have expanded to include the ability to use e-mail and graphical interfaces such as Netscape, experience with on-line publishing, and the ability to evaluate the content of on-line materials (Corl, 1996). The importance of locating and evaluating electronic information sources expands the definition of computer literacy to include information literacy as well. "Information literacy is the ability to identify what information is needed and the ability to locate, evaluate and use information in solving problems and composing discourse" (Nolte, Harris-Lee, and Miller, 1993).

Computer literacy ensures continuing access to educational opportunities by preparing students to manipulate the basic tools of instruction in the community college environment and beyond. Lever-Duffy (1993) identifies students' lack of basic computer skills as a barrier to the successful integration of computer-assisted instruction. Corl (1996) found that 91 percent of the preservice teaching programs at senior institutions require courses in technology. She believes that community college students who hope to transfer to these programs must become proficient in computer

skills before transferring. Furthermore, Sherry and Sherry (1996) found that students' perceptions of their computer skills, especially in the use of spreadsheets, was positively related to their persistence in college.

Successful adoption of computer literacy as an aspect of community colleges' GE requirements has been increasing. At Tacoma Community College in Washington, results from a needs assessment survey indicated that basic academic skills, communication skills, and adaptive skills are more important to local employers than specific technical skills (Nolte, Harris-Lee, and Miller, 1993). In light of these findings, a task force recommended the inclusion of six essential skills, including computer literacy, among the objectives of GE requirements for occupational students (Nolte, Harris-Lee, and Miller, 1993). To demonstrate their computer literacy, students undergo individual assessment processes rather than take required courses.

The most common objectives of GE requirements include establishing students' breadth of knowledge; enhancing their skills in computation, written expression, and critical thinking; and providing knowledge that will help them to make decisions in their everyday lives. A variety of requirement structures create opportunities to complete these objectives through different patterns of election and prescription. Computer literacy—the ability to access, evaluate, and manipulate data in an electronic form—is emerging as a new basic skill; and knowledge of the diverse cultures within the United States and globally has been identified as an important addition to the common body of knowledge taught in community colleges.

Methodology

The study reported in this chapter used a subsample of the data collected through the National Curriculum Project of the CSCC ($n = 164$; see Chapter One of this volume for a detailed description of the study). The catalogues of thirty-two community colleges across the nation were subjected to a quantitative content analysis of their GE requirements. The sample represents the colleges that were included in the 1991 survey by the CSCC and for which enrollment data were collected in 1998. The catalogues were analyzed for the presence of official statements of the purpose or objectives of GE. The structure of the GE requirements were analyzed according to the following categories, as defined by Levine (1978): a true core curriculum (same for all majors), distributional requirements, or a free elective system for both transfer degrees (associate of arts, associate of science) and non-transfer degrees (associate of applied science). Preliminary data analysis suggested that these categories did not encompass the true variation in the community college curriculum. Thus the following categories were added: core curriculum (varies according to discipline), core curriculum with electives, or graduation requirements (not necessarily described as GE). The category of "distributional requirements" encompassed GE programs limited to particular group requirements in each area as well as those that had

specific numbers of courses in particular groups and allowed for some electives.

For both transfer and nontransfer degrees, the GE requirements were analyzed in the following broad categories: English composition, mathematics, humanities (including fine arts), U.S. history, U.S. government, life and physical sciences, physical education and wellness, ethnic studies or multiculturalism, foreign languages, and computer literacy. The areas of multiculturalism and computer literacy were examined in depth to illustrate variations in the structure of the requirements of these new areas of the curriculum (such as a stand-alone course, elected from a set of courses, part of a larger category such as math and science or physical education) as well as their representation in occupational and educational programs.

Findings

Purpose of GE. More than half (56 percent or eighteen of thirty-two) of the schools' catalogues contained a statement of the objectives of GE (see Table 4.1). Catalogues define the specific requirements as well as provide information about the purpose behind them. For example, the catalogue of Richard Daley College in Chicago defines the purpose of the GE requirements in broad terms. "General Education Core required courses are intended to provide a breadth of academic experience, to enhance understanding and appreciation of one's cultural heritage, to promote civic competence, and to improve personal ability and interests." Such statements were analyzed in terms of broadly defined common themes.

Each school exhibited one or more themes in its statement of objectives. The variety of themes found in the sample indicates the varied purposes of GE as well as a lack of uniform expectations across institutions.

Table 4.1. Number and Percentage of Schools That Express Common Purposes in Their GE Statements

<i>Purpose</i>	<i>Number of Schools</i>	<i>Percentage</i>
Basic skills	14	44
Core knowledge	11	34
Personal growth	10	31
Appreciate diversity	8	25
Citizenship	7	22
Interpersonal skills	7	22
Lifelong learning	5	16
Academic breadth	4	13
Moral development	4	13
Success	3	9
Educated person	2	6
Survival	1	3

This phenomenon indicates a contradiction to the spirit of GE, which is to present a unified body of knowledge to all students. The themes found in this analysis combine the basic philosophies behind liberal learning and GE: to provide core knowledge of our cultural heritage as well as specific skills. Specific basic skills in mathematics and English composition are emphasized as well as skills in critical thinking, scientific reasoning, and the manipulation of scientific equipment. Interestingly, an equally important aspect of GE is academic breadth (Levine, 1978), which has a weak presence in this sample. Only four of the schools explicitly mention it.

Requirement Structures. A considerable proportion of both transfer and nontransfer degree programs at two-year institutions express the school's GE requirements through distributional requirements (Table 4.2). Thus these data show that despite criticism that it is trying to be all things to all people, this form of GE remains resilient. However, differences between transfer and nontransfer requirements do exist because the largest proportion (43 percent) of colleges designate their GE requirements for nontransfer degree programs on a program-by-program basis. Thus, within the same institution, a nontransfer accounting major will partake of a different GE program than a business administration (transfer) major. This lack of consistency belies the purposes of GE to afford individuals with common knowledge.

Changes in Traditional Dimensions. Basic academic skills (such as composition and mathematics) are highly represented in GE programs for both academic and occupational degrees. Although general social studies courses are also required in both types of programs, U.S. history and government are not required as often in occupational programs. Although occupational degree programs may represent the last formal education for some students, 50 percent or less of these degree programs provide their students with knowledge of civic processes and issues.

A larger proportion of nontransfer than transfer programs make some computer literacy requirement (Table 4.3). Relative to the proportions of other

Table 4.2. Percentage of Schools That Utilize Each Type of Requirement Structure

	<i>Transfer</i>	<i>Nontransfer</i>
Distributional requirements	69	29
Core with electives	21	14
Core curriculum (by program or major)	10	43
Core curriculum (general)	0	3
Free electives	0	7
Graduation requirements not GE	0	3

Note: n = 29 for transfer degree programs and 29 for nontransfer degree programs because not all institutions offer both types of programs.

Table 4.3. Percentage of Schools That Require Courses in the Areas Listed for Associate's Degree Programs

	<i>Transfer</i>	<i>Nontransfer</i>
English composition	100	100
Life and physical sciences	100	46
Mathematics	100	96
Social science (general)	97	82
U.S. history	93	43
U.S. government	90	50
Humanities (including fine arts)	86	68
Foreign languages	83	36
Physical education/wellness	79	21
Computer literacy	76	86
Ethnic studies or multiculturalism	31	21

courses, nontransfer programs are more likely to require computer literacy over U.S. government, humanities, life and physical sciences, and U.S. history. These disciplines are traditionally part of a liberal education, so it is not surprising to see them omitted from an occupational degree program. However, the lack of science education may contribute to nontransfer programs' lack of status in higher educational circles. In an economy that is increasingly technologically oriented, lack of knowledge about scientific procedures and principles may present a future occupational barrier for graduates of these programs. In addition, fewer nontransfer students are required to take health education. A lack of education about issues of wellness and physical fitness may have a negative impact on an individual's ability to make intelligent decisions about his or her own health and the health of his or her family.

New Dimensions. Computer literacy requirements are structured in two basic ways. Either an individual elective is available under a related core or distributional heading (such as math, math and science, and so on), or the computer literacy requirement is expressed as a core discipline on its own or as a particular core course. Computer literacy falls under a variety of distributional headings: math, math and science, consumer education, communication, and analytical thinking. Thirty-one of the institutions (97 percent) had a requirement for at least one of their degree programs.

Not every school that requires computer science courses or allows for an elective does so for both transfer and nontransfer programs. Of the thirty-one schools that have some requirement, fifteen have requirements for both types of degrees, seven have requirements for transfer only, and eight have requirements for nontransfer only. More schools (two-thirds) have an independent requirement rather than including a computer course as part of the math, science, or reasoning categories.

While computer literacy requirements are quite high in both transfer and nontransfer programs, the content of these courses may vary consider-

ably. This variation is illustrated by the fact that computer literacy courses may fall under highly varied disciplines, from communication to math and science. Further investigation of the content of computer literacy courses would illuminate the new types of knowledge and skills that are being required of community college students.

Individual multicultural courses fall under different distributional headings such as social sciences, humanities, and interdisciplinary humanities. Of the thirteen schools that have some requirement, three have requirements for both transfer and nontransfer degrees, eight have requirements for transfer only, and two have requirements for nontransfer only. Although not many schools require a specific multicultural course or courses, approximately one-third of all institutions offer courses in African American, Asian American, and Latino (La Raza) studies to fulfill GE requirements. Schools that include appreciation or awareness of other cultures as part of their GE objectives may include such considerations within courses not specifically labeled as multicultural. This factor cannot be determined from the analysis used in this study. However, Takaki's idea that a course requirement in American pluralism should be made a regular part of the community college curriculum has not come to pass (Reid, 1995). Perhaps this new knowledge has become truly integrated in the sense that it is now neither more nor less important than courses in the traditional liberal arts.

Conclusion

The purpose of GE programs in community colleges combines elements of both liberal education and GE. Institutional objectives for GE emphasize core knowledge rather than breadth. Students are expected to acquire basic skills and general knowledge, although GE requirements for nontransfer degrees emphasize the former over the latter. Lack of emphasis on certain types of knowledge, such as American history and politics and health issues, is particularly relevant when considered in light of GE objectives to encourage intelligent action in everyday life. Knowledge of civic issues is a fundamental aspect of informed participation in a democracy. If occupational students are not at least introduced to this fundamental knowledge, they may be excluded from full participation in significant social and political activities. This trend indicates a serious compromise to educational equity for vocational students who are not given the opportunity to develop critical thinking skills and knowledge about issues of individual and social significance.

The structure of GE requirements in community colleges remains consistent with past research. Distributional requirements constitute the largest proportion of academic degree programs and a significant proportion of occupational degree programs. Occupational degree programs more often specify GE requirements on a program-by-program basis. This phenomenon illustrates a contradiction because all of the GE programs

in a particular college do not necessarily promote the same core knowledge. This inconsistency, in conjunction with the emphasis on skills over knowledge, represents a degraded vision of E for occupational degree students.

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5

After reviewing definitions of interdisciplinary courses and summarizing different existing programs, the author analyzes the interdisciplinary course offerings of colleges in the Center for the Study of Community Colleges' 1998 Curriculum Project. Comparisons are made with data from the 1991 curriculum study.

Interdisciplinary Studies in the Community Colleges

Arianne Abell Walker

Most general education programs in both community colleges and four-year institutions use the distribution approach in which students are permitted to choose courses from a list of applicable offerings in specified categories to fulfill the requirements (Astin, 1993; Cohen and Brawer, 1996; Smith, 1993). Although this approach exposes students to many different courses and ways of thinking, it leaves a lot to chance. Students often do not take courses in any coherent fashion and therefore rarely see the connections among courses without specific guidance by faculty (Boyer, 1987; Gaff, 1995; Smith, 1993). Faculty and administrators in institutions of higher education are responsible for formulating general education programs that make the coherence more obvious by integrating knowledge and creating a perspective that is more genuine (Boyer, 1987; Smith, 1993). One way to do this is to create interdisciplinary courses and curricula for undergraduates. This chapter looks specifically at the interdisciplinary course offerings of the 164 institutions that participated in the 1998 Curriculum Project of the Center for the Study of Community Colleges (CSCC).

Interdisciplinary Study

An interdisciplinary course is defined as a course with at least two instructors from different departments, divisions, or specializations, in which the synthesis of ideas and perspectives takes place (Davis, 1995; Hepner, 1996). Interdisciplinary courses are often characterized as follows:

- Highly innovative (Davis, 1995; Hepner, 1996)
- Incorporating new concepts and methods between disciplines (Clark and Wawrytko, 1990; Davis, 1995)
- Exploring content that involves broad-based social issues requiring multiple disciplines for effective study (Davis, 1995; Garbowsky, 1995)
- Educating students in ways that are not bounded by artificial disciplinary lines that do not exist as such in the world outside higher education institutions (Jacobs and Teahen, 1996)
- Combining liberal arts and general education with vocational education (Felton, 1996; Jacobs and Teahen, 1996)

These types of courses and curricula are particularly important in community colleges. Because community colleges' institutional missions include serving the community, including students who drop in for a course or two, students who are there for vocational education, or students who are there for transfer purposes, understanding how interdisciplinary courses serve each of these populations is key. Students who do not plan to continue with further formal education after attending community college can broaden their educational experience through interdisciplinary courses (Garbowsky, 1995). Students pursuing vocational education will be prepared by interdisciplinary courses to become part of a highly skilled, changing workforce, because these courses will require them to think about issues from multiple points of view. These integrated courses may create a sense of community on campus by joining together the faculty who offer them. This sense of community in turn motivates students in both academic and developmental courses and encourages the continuation of their education (Felton, 1996; Jacobs and Teahen, 1996).

Benefits of Interdisciplinary Coursework

Jacobs and Teahen (1996) have found that courses that combine liberal and general education curricula with vocational curricula at the community college are correlated with increased mastery of the competencies that are required for educational and vocational success. Additionally, moral, humanistic, and political perspectives are incorporated into the academic programs of vocational students in community colleges. These courses also reenergize the faculty involved (Felton, 1996; Jacobs and Teahen, 1996), and the instructor becomes a role model for lifelong learning (Felton, 1996). Finally, interdisciplinary courses also assist students with "intellectual and spiritual developments of the whole person" (Davis, 1995, p. 41).

In addition to simply teaching or taking an interdisciplinary course, it is possible to create learning communities with the course as the centerpiece. As an example, Cerritos College (1999) has created such interdisciplinary learning communities. They are intended to promote the following:

an environment of intellectual interaction between faculty and students, curricular coherence (reinforcement, integration of ideas, or both) within courses, an understanding of issues that cross disciplinary boundaries, an exploration and understanding of diverse perspectives, student-centered learning, student retention, and faculty development. All of these goals are beneficial to students, faculty, the institution as a whole, and the academy.

Examples of Existing Interdisciplinary Programs

Shoreline Community College (Washington). The core curriculum includes integrated studies courses, one example of which is the science, civilization, and human creativity course. The criteria by which this course gained its integrated studies classification include the incorporation of multiple disciplines, integration from discipline to discipline, usage of different methodologies, and the inclusion of four skills areas (Rosenwasser, 1995).

Cuyahoga Community College (Ohio). One choice students have at this community college is a three quarter, freshman-level course in classical philosophy and American literature. The two professors who teach the course have very different philosophical backgrounds and this serves to spark discussion. One professor introduces a topic and presents ideas while the second professor acts as a commentator, questioner, and even as the devil's advocate. This particular course has been successfully offered for fifteen years (Davis, 1995).

Niagara County Community College (New York). This institution offers a course, taught by two faculty, that explores the visual, verbal, and performing arts. The focus of the two faculty members is to relate one art form to another (Davis, 1995).

Macomb County Community College (Michigan). This college also incorporates general education curricula with occupational curricula. One such course was a business and technical writing course designed by faculty from the English, technology, and accounting disciplines. Other combinations include nursing, health care ethics, and English; physics and English; and math, English, engineering, visual communications and commercial art, industry training, and business (Felton, 1996).

Lansing Community College (Michigan). At Lansing, fourteen faculty members come together in four teams that boast the incorporation of as many disciplines and teaching techniques as possible. The following disciplines are represented: chemistry, physics, biology, geology, meteorology, and system dynamics. The courses are specifically organized around four basic questions that cause students to think about a question while incorporating ideas from multiple disciplines (Davis, 1995).

While it is apparent that interdisciplinary courses are well worth the time for students and faculty alike, few studies have systematically investigated the availability of such courses on community college campuses.

Curriculum Study: Sample and Methods

The data used in this study come from the 1998 Curriculum Project of the CSCC (detailed in Chapter One of this volume). This chapter focuses on three subject areas: interdisciplinary humanities, interdisciplinary social sciences, and integrated physical and general sciences. The courses placed in these categories were either labeled interdisciplinary by the offering institution or described as spanning more than one academic discipline. One important caveat to the coding scheme is that the number of instructors was not taken into consideration. Therefore, the courses coded as interdisciplinary do not necessarily meet all of the criteria of the formal definition of an interdisciplinary course. Regardless, it is useful to see the patterns in which community colleges offer courses that span multiple disciplines as a first step toward true interdisciplinary course offerings and perhaps even learning communities.

Interdisciplinary Courses Across Institutions

Overall interdisciplinary courses constitute 1 percent of the total community college curriculum and just under 2 percent of the liberal arts curriculum. All three sizes (small, medium, and large) of institutions offer interdisciplinary coursework (see Table 5.1). Twenty-one institutions do not offer any interdisciplinary courses at all. It is reasonable to expect that the larger the institution is, the more opportunity there will be to offer interdisciplinary courses because of the greater number of faculty on the campus, which provides more opportunities for faculty to team up with colleagues in teaching a course. However, the larger the institution, the more likely it is to be inundated with rules and regulations that might increase the required paperwork to bring innovation into the curriculum. As it turns out, of those institutions that do offer interdisciplinary courses there is a tendency for large institutions to offer at least one course. However, a similar percentage of medium and large institutions (96 and 95 percent, respectively) offer interdisciplinary courses in all three areas (that is, humanities, social sciences, and sciences). Sixty-nine percent of small colleges offer all three types. It appears that large and medium institutions are able to offer interdisciplinary courses more readily than small institutions.

Table 5.1. Percentage and Number of Colleges Providing Interdisciplinary Courses (n = 164)

<i>Interdisciplinary Subject Area</i>	<i>Small</i>	<i>Medium</i>	<i>Large</i>	<i>All Sizes</i>
Interdisciplinary humanities	17% (9)	65% (35)	74% (43)	53% (87)
Interdisciplinary social sciences	25% (13)	41% (22)	69% (40)	46% (75)
Integrated sciences	48% (25)	50% (27)	64% (37)	54% (89)
All interdisciplinary subject areas	69% (36)	96% (52)	95% (55)	87% (143)

Another way to look at the data on interdisciplinary courses by institution is to examine the number of courses offered by each institution. The next three tables summarize the number of institutions offering interdisciplinary courses by subject area. Table 5.2 describes the breakdown of institutions offering interdisciplinary courses in the humanities. Although 41 percent of institutions do not offer any courses in this area, the other 59 percent offer between one and eighty-eight courses, with the majority offering one to twenty courses. The two institutions offering the most interdisciplinary humanities courses (eighty-eight and sixty-eight) are both located in Florida. The vast majority of these courses fall into the "general" category; that is, they are not traditional "great books" courses. Only three institutions offer great books courses, which cover the classics, which are often described as European masterpieces that have withstood the test of time.

The humanities seems to be the one area that occasionally makes use of team teaching in interdisciplinary courses. For example, one institution in Missouri offers a course that focuses on architecture, science, and society and draws together the main themes of a liberal arts education. The faculty and students in this course consider the impact of science, technology, and the humanities on societies over time, on values and ethics, on the future consequences of present policies, and on the enjoyment and importance of both the arts and the sciences.

Even the interdisciplinary humanities courses that do not involve more than one faculty member still incorporate multiple disciplines, such as literature, music, art, history, religion, and philosophy. Many of the courses explore the interconnectedness of these disciplines from multiple cultures and across time.

Table 5.3 shows interdisciplinary courses in the social sciences. Fifty-four percent of the institutions do not offer any such courses. The rest of the institutions offer between one and forty-six courses. The two institutions offering the most interdisciplinary social science courses (forty-six and thirty-two) are in Iowa and California, respectively.

An example of such an interdisciplinary social science course is one on the psychological, biological, social, and cultural aspects of human sexuality. This course is team taught by two faculty. Other interdisciplinary courses in the social sciences, while not team taught, cover film and society or social

Table 5.2. Institutions Offering Interdisciplinary Humanities Courses

<i>Number of Courses Offered</i>	<i>Number of Institutions</i>	<i>Percentage of Institutions</i>
0	67	40.9%
1	21	12.8%
2-3	25	15.3%
4-9	31	18.8%
10-20	13	7.3%
21-88	7	4.2%

Table 5.3. Percentage of Institutions Offering Interdisciplinary Social Science Courses

<i>Number of Courses Offered</i>	<i>Number of Institutions</i>	<i>Percentage of Institutions</i>
0	89	54.3%
1	22	13.4%
2-3	8	14.0%
4-9	17	10.2%
10-20	9	5.4%
21-46	4	2.4%

and political issues in the United States (bringing together disciplines such as history, anthropology, sociology, and social psychology).

Table 5.4 shows that more than half of the community colleges offer some sort of interdisciplinary course in the sciences, with a range of one to twenty sections. Some of these are survey courses that explore physical sciences or life sciences; others look at topics that bridge the two. For example, one course offered at a community college in California looks at topics from physics, chemistry, astronomy, biology, genetics, the environment, and populations and their social implications.

Although many of the institutions offering interdisciplinary coursework provide only a handful of courses each semester, these courses can still be beneficial to the faculty and the students involved, as described previously. Because community college faculty are hired specifically for their teaching abilities, they are able to dedicate the time and energy needed to create and implement quality interdisciplinary courses. Yet no matter how positive the outcomes of such a learning and teaching environment are, it can never be expected that all, or even most, faculty will engage in this sort of enterprise due to the complexity and rigor of teaching such a course. Therefore, it is impressive to see a majority of institutions offering interdisciplinary humanities courses, more than half of the institutions offering interdisciplinary science courses, and almost half of the institutions offering interdisciplinary social science courses.

Transferability of Courses

Courses were coded as to whether they counted toward a transferable associate's degree. However, some college catalogues were not particularly clear on this issue, so course transferability is left open to interpretation in some cases. Ninety-one percent of the interdisciplinary courses are transferable to a four-year public institution in the same state. Overall, it is clear that four-year institutions accept the transfer of interdisciplinary courses, which tells students and faculty alike that this is an acceptable form of coursework beyond the community college.

Table 5.4. Percentage of Institutions Offering Interdisciplinary Science Courses

<i>Number of Courses Offered</i>	<i>Number of Institutions</i>	<i>Percentage of Institutions</i>
0	75	45.7%
1	24	14.6%
2-3	34	20.7%
4-9	27	16.4%
10-20	4	2.4%

Distance Courses

A total of fifty-six interdisciplinary courses were offered as distance courses, using television, the Internet, and video. The offerings ranged from one to four courses per campus at the thirty-three institutions that offered these courses. The Internet allows innovative faculty from multiple campuses to work together to create interdisciplinary courses. Although the cost of such courses is often an issue for institutions, this combination of interinstitutional faculty and resources allows the cost to be distributed across community colleges (Davis, 1995). These types of interdisciplinary courses will probably bloom as distance courses in general become more popular in the future (Blumenstyk, 1999). In fact, there is currently a Community College Distance Learning Network (1999) involving eight community colleges across the nation.

Interdisciplinary Course Offerings: A Comparison of 1991 and 1998

To make statements about how interdisciplinary course offerings have changed over time, it is necessary to compare the data from the 1998 curriculum study to the data from the 1991 curriculum study. Of the 164 institutions in the 1998 sample, 64 remained the same; however, data for five of these institutions were not available in the area of interdisciplinary courses. Therefore, the sample used for this comparison includes 59 matched institutions.

The mean number of interdisciplinary courses offered per institution increased from 3.8 courses per institution to 4.8 courses per institution. This comparison implies that each institution added just over one interdisciplinary course, on average, over the last seven years. The biggest change in average number of course offerings was in the humanities. The smallest change in average number of course offerings was in the sciences, as shown in Table 5.5. While the number of interdisciplinary humanities and social sciences courses increased, the number of interdisciplinary science courses remained almost the same.

Table 5.5. Total and Average Number of Institutional Interdisciplinary Course Offerings

	Total	1991 Average	Total	1998 Average
Humanities	189	4.7	219	6.6
Social sciences	97	2.8	108	4.2
Sciences	120	3.8	101	3.8
Overall	386	3.8	428	4.8

The differences in interdisciplinary course offerings are real and increasing in each area except for science, and increasing overall nonetheless. The humanities and social sciences may lend themselves more readily to interdisciplinary work than other subjects because students may not need as fundamental a foundation in these areas (as compared to the natural sciences) in order to make sense of the material. Additionally, some of the courses that have a science component but deal with social consequences or social impact tended to show up in catalogues in the social science areas and were coded as such. The total number of interdisciplinary courses across all three areas (that is, humanities, social sciences, and sciences) went from 386 to 428 in the fifty-nine institutions. This accounts for a total increase in interdisciplinary course offerings of 10 percent.

Summary

This chapter reports the findings on interdisciplinary courses from the most recent study of the curriculum in American community colleges. The findings show that small, medium, and large institutions all offer interdisciplinary curricula, although small institutions do so to a lesser extent. A majority of institutions offer interdisciplinary courses in the humanities, slightly less than half of the institutions offer interdisciplinary courses in the social sciences, and slightly more than half of the institutions offer interdisciplinary courses in the sciences. Although only 1 percent of the total community college curriculum takes the form of interdisciplinary courses, between 3 and 5 percent of the specific subject areas (that is, the humanities, the social sciences, and the sciences) are interdisciplinary courses. Most of the interdisciplinary courses are transferable to four-year institutions. This transferability, along with the emergence of distance courses, may encourage faculty to continue to teach interdisciplinary courses given the positive experiences reported for both students and faculty. Over the last seven years the number of interdisciplinary courses in the natural sciences has decreased slightly, but overall the number of interdisciplinary courses has actually increased by 10 percent.

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This chapter examines relationships between the presence of honors programs at community colleges and institutional, curricular, and student body characteristics. Furthermore, the author relates his findings to what is already known about the presence and effect of these programs.

The Importance of Community College Honors Programs

Charles Outcalt

Although community college honors programs serve an essential function by providing educational challenges for an often overlooked student population—the educationally well-prepared—they have received scant attention in the research literature (Bulakowski and Townsend, 1995). This chapter addresses at least a portion of this gap by investigating the presence of honors programs within a national sample of 163 community colleges. In particular, the chapter examines the relationships between the presence of honors programs and institutional characteristics (such as size), curricular characteristics relevant to transfer (such as institutional emphasis on transfer and remedial courses), and student body characteristics (such as the proportion of minority groups). These research findings are compared to previous research about the presence and effect of these programs.

Previous Studies of Honors Programs

Honors programs in the context of this study are either individual courses or more complex courses of study that feature enriched, expanded, or more rigorous academic content. The educational literature contains several useful case studies of the effectiveness of these programs in preparing students for transfer to senior institutions (such as Lucas, Hull, and Brantley, 1995; Laanan, 1996). In addition, a few larger-scale studies of these programs are available. Byrne (1998) conducted a comprehensive review of the literature on honors programs in community colleges, examined thirty-eight honors programs in nineteen states, and discussed a wide range of issues relevant to such programs, including their origins, goals, structure, and course offerings.

However, there have been few comprehensive assessments of the presence and effectiveness of honors programs, and most studies, such as those just mentioned, have tended to focus on specific institutions or subsets of community colleges. Cohen and Brawer (1996) note that about 10 percent of North Central community colleges in a 1975 study offered honors programs, with this number growing to approximately 25 percent by 1995 (according to Cohen and Brawer's review of *Peterson's Guide to Two-Year Colleges*). However, the 1975 study was confined to a particular region, and data from the *Peterson's Guide* do not contain readily accessible information on the relationship of the incidence of honors programs to other community college characteristics.

In short, despite the availability of a few indications of the overall presence of honors programs in community colleges, conclusions on both the incidence and effectiveness of such programs must remain tentative, because as Bulakowski and Townsend (1995) state, the majority of honors program research tend to be single-institution studies demonstrating elements of the success of individual programs, often focusing on either student satisfaction with the program, the characteristics (especially demographic) of student participants, or anecdotal evidence of program effectiveness.

Tension Between Honors Programs and Community College Access Policies

Despite the lack of strong empirical evidence regarding their availability and effectiveness, honors programs have been criticized for seeming to introduce a note of elitism into the egalitarian goals of community colleges (Olivas, 1975). These charges have been exacerbated by limited studies showing that honors program participants are more likely than non-honors students to be white and female (Lucas, Hull, and Brantley, 1995). However, the relationship between honors courses and minority student success need not be antagonistic. Some institutions, such as Mississippi's Itawamba Community College, have used supplemental instructional materials and methods, including guest speakers and videos, in honors courses to focus on the experience of cultural and ethnic minorities (Itawamba Community College, 1997). Students in the Itawamba course reported very high degrees of satisfaction with the form and content of the class and stated that their appreciation for pluralism had been enhanced by their experience with the course. In addition, research investigating the role of honors programs in student transfer (Outcalt, 1999) has shown that these programs can have a positive effect on the transfer of underrepresented students to four-year institutions.

In conclusion, the educational literature would be strengthened by a large-scale investigation of the incidence of honors programs than is possible within the current study. Findings from such a study could form a baseline of knowledge regarding the availability of these programs, which could

in turn serve as a context for further large-scale research. In addition, this research could be useful in countering or validating the charges of critics who hold that honors programs are inherently elitist and antithetical to the longstanding community college principle of open access for all.

Design of the Study

The present study examines three primary research questions:

1. What proportion of community colleges offer honors programs?
2. How can community college students gain access to honors programs?
3. Are there any systematic relationships between the availability of honors programs and institutional, curricular, and student characteristics?

A National Sample of Community College Curricula

Data in this study were gathered from college catalogues and class schedules solicited from a random sample of community colleges, stratified by size (as described in Chapter One of this issue). Staff from the Center for the Study of Community Colleges examined catalogues and class schedules for spring 1998 and created a database that included the following variables:

- Institutional characteristics, such as size, location, and type of control
- Curriculum characteristics, such as the presence and proportion of various types of courses
- Student characteristics, such as the presence and proportion of students in various ethnic groups

Both institutional and student characteristics were drawn from 1996 National Center for Education Statistics data.

For the current study, each of the 164 catalogues that were used for the Curriculum Project were examined. Data for one institution represented in the Curriculum Project was not available at the time of this study so a total of 163 ($n = 163$) is used, unless otherwise noted. In reviewing the catalogues, indications of the presence of honors programs within the institution's curriculum were identified, as was information regarding honors program admissions criteria.

Analysis of the Data

The catalogues were coded to reflect the presence or absence of honors programs, strictly academic entrance criteria, nonacademic entrance criteria (such as portfolios, interviews, letters of recommendation, and so on), and where data were available, entrance criteria to these programs, including minimum high school or community college grade point averages and minimum

Table 6.1. Presence of Honors Programs and Descriptive Information Regarding Entrance Criteria

	Presence of Honors Programs	Entrance Criteria for Honors Programs				Nonnumeric Criteria*	Nonacademic Criteria**
		Standardized Test (SAT or ACT) Score	College GPA	High School GPA			
Number and Percentage of Schools	59 (35.8 percent)	17 (10.3 percent)	28 (17.2 percent)	10 (6.1 percent)	21 (12.9 percent)	3 (1.8 percent)	
Mean Score and Standard Deviation	N/A	SAT: 1089.69 (97.70)	ACT: 24.29 (1.68)	3.29 (0.25)	N/A	N/A	

n = 163. * Includes letters of recommendation, essays, and interviews. ** Includes special appeals, demonstrations of life experience, and so on.

scores on standardized tests, including the SAT, the ACT, and region-specific tests.

While data from the Curriculum Project form a unique and invaluable source of information on community college honors programs, several limitations must be borne in mind when attempting to generalize the findings, including the small number of community colleges falling into specific categorizations; the inability to sort them by potentially relevant geographic characteristics, such as rural or urban location; and difficulties in sorting courses into discrete, mutually exclusive categories based on subject area, transferability, and so on. Finally, because all of the information has been taken from community college catalogues rather than from measures of student participation in or the effect of these programs, it is possible to describe only the incidence of honors programs. Investigation of other program characteristics, such as overall enrollment patterns, student success in honors courses, and the outcomes of participation in these programs, is not possible within the limitations of the data at hand.

Findings

Presence of Honors Programs and Honors Course Admissions Requirements. As Table 6.1 shows, of the 163 institutions studied, 59, or 35.8 percent, offered honors programs to their students. Of those 59 institutions, just over 10 percent used scores from the SAT, the ACT, or both as entrance criteria. Almost one-fifth depended on college grades for program admission, while only slightly more than 6 percent used high school grades. Most institutions that used grades from one segment of a student's education tended to look at grades from the other segment as well. All programs requiring a particular college GPA had minimum standards for high school grades as well. An additional 13 percent employed nonnumerical criteria (interviews, letters, or essays), while a small minority allowed students to gain access to honors programs through nonacademic means, such as special petitions based on life experience. Many institutions required more than one item to demonstrate admissibility.

Relationship Between Honors Courses and Institutional, Curricular, and Student Body Characteristics. Table 6.2 presents the statistically significant correlations between the presence of honors programs and institutional, curricular, and student body characteristics. Schools with larger enrollments are more likely to offer honors programs, as are those with a higher proportion of transfer courses. These findings must be interpreted with some caution, however, because the definition of *transfer course* is somewhat open to interpretation. Schools with a higher proportion of remedial courses are less likely to offer honors programs, although this correlation is not statistically significant at the $p < .05$ level. Institutions with more African American students are less likely to offer honors programs, while those with Latina and Latino students are more likely to offer these programs. As noted

Table 6.2. Correlations Between Presence of Honors Programs and Institutional, Curricular, and Student Body Characteristics

<i>Correlations</i>	<i>Presence of Honors Programs</i>
Size of institution	22**
Proportion of transfer courses	24**
Proportion of remedial courses	-11
Proportion of African American students	-16*
Proportion of Native American students	-01
Proportion of Asian American students	14*
Proportion of Latino students	23*

n = 163; * indicates correlations statistically significant at the $p < .05$ level; ** indicates significance at the $p < .01$ level. Decimal points have been omitted.

Source: Center for the Study of Community Colleges' 1998 Curriculum Project data and catalogues.

later, however, these correlations do not imply any causal effect between the racial and ethnic composition of an institution's student body and its curriculum. The correlations described in Table 6.2 will later be investigated further using linear regression.

Table 6.3 allows further investigation into student body characteristics and the presence of honors programs by presenting information on the relationship between the proportion of minority students within an institution's student body and the likelihood that the institution will offer honors programs. As shown in the table, there is a negative relationship between the proportion of some minority groups and the availability of an honors program. For example, 43 percent of the institutions with fewer than 3 percent African American enrollment had honors programs, but only two of the twelve schools (or 16.7 percent) with greater than 40 percent African American enrollment had honors programs. There appears to be a slight negative relationship between the proportion of Native American students and the presence of honors programs, although the absolute number of students in this group renders such a conclusion tentative. Interestingly, the likelihood of honors programs increased as the proportion of Latina and Latino and Asian American students rose.

However, as noted earlier, the small number of institutions falling into each cell (especially those cells representing institutions with higher proportions of minority students) renders these findings informative but far from authoritative. In addition, it should be noted that correlations between student body characteristics and the presence of honors programs do not imply causality. For example, they do not provide evidence that the proportion of students in any particular racial or ethnic group has a direct causal effect on the availability of honors programs. However, attention to these correlations can have important implications for issues of racial and ethnic equity, particularly for those concerned with the educational resources available to underrepresented students.

Table 6.3. Cross-Tabulations Between the Proportion of Minority Students and the Presence of Honors Programs

<i>Ethnic Group</i>	<i>Number and Percentage of Community Colleges Offering Honors Programs, by Proportion of Ethnic Group as Percentage of Total Student Body</i>		
	<i>Low (0 to 3 percent)*</i>	<i>Middle (>3 to 40 percent)</i>	<i>High (>40 percent)</i>
African American	25 of 58 (43.1 percent)	31 of 88 (35.2 percent)	2 of 12 (16.7 percent)
Native American	56 of 152 (36.3 percent)	2 of 6 (33.3 percent)	N/A
Asian American	41 of 124 (38.1 percent)	16 of 32 (50 percent)	1 of 2 (50 percent)
Latino	24 of 88 (27.3 percent)	27 of 60 (45.0 percent)	7 of 10 (70.0 percent)

n = 158. * Proportions were divided at points designed to minimize disparity among the number of institutions in each category.

A stepwise linear regression was selected to investigate in greater detail the complex relationships between institutional, curricular, and student body characteristics and the availability of honors programs (Dey and Astin, 1993). In this regression equation, the presence of honors programs was set as the dependent variable, with independent variables entered in three blocks: institutional size, the proportion of the curriculum devoted to transfer and remedial courses, and the institutional proportion of students belonging to those racial and ethnic groups discussed earlier (African American, Native American, Latina and Latino, and Asian American).

The use of stepwise regression allows for a more nuanced understanding of the findings reported in earlier tables. By introducing institutional size as the first independent variable, we are able to control for the effect of this factor on those variables that enter the equation at subsequent steps. Similarly, the introduction of key curricular characteristics into the equation allows for the control of these factors on variables that enter late (in this case, the proportion of students in a college's student body belonging to various ethnic and racial groups). In addition, the presentation of beta weights before and after the introduction of other entering variables allows us to assess the effect of these variables in relation to other factors.

As Table 6.4 shows, institutional size remains a positive predictor for the presence of honors programs throughout the equation. In the second step of the equation, in which relevant curricular characteristics were introduced, only one variable entered: the proportion of courses dedicated to the transfer function. Consistent with results reported in earlier tables, this variable

Table 6.4. Predicting the Presence of Honors Programs Using Institutional, Curricular, and Student Body Characteristics

Step	Variable	R	Simple r	Beta After Step		
				1	2	3
1	Institutional size	22	22**	13**	10	11*
2	Proportion of transfer courses	28	24**	17*	11*	10
3	Proportion of African Americans	33	-16*	-20**	-18*	-15*

n = 159. Note: Decimals before numbers have been omitted; * indicates figure significant at $p < .05$; ** indicates figure significant at $p < .01$.

Source: Center for the Study of Community Colleges' 1998 Curriculum Project data and catalogues.

remained a positive predictor for the presence of honors courses, even after controlling for the size of the institution. However, the drop in the beta weight for this variable after the introduction of institutional size shows that size and the proportion of transfer courses are positively correlated.

The final row in Table 6.4 presents the complex relationship between the proportion of African Americans within an institution's student body and the likelihood of honors courses being offered at that institution (variables indicating the proportion of Latino, Asian American, and Native American students did not enter the equation). The beta weights reported in the final row reveal that although the proportion of African American students within a community college's student body remains a negative predictor for the presence of honors programs at that institution, the strength of this effect decreases after we control for all variables. As noted earlier, those people who are committed to equity within the educational opportunities available to African Americans have reason to be concerned by these findings, because they indicate that, institutional size and key curricular characteristics being equal, African American students have less access to honors courses within community colleges.

The Relevance of Research Findings for Educational Equity

As these results show, there are strong correlations between the availability of community college honors programs and institutional, curricular, and student body characteristics. As might be expected, community colleges with more students and a transfer-oriented curriculum are most likely to offer honors programs. Disturbingly, the proportion of minority groups seems to affect the likelihood of honors programs as well. The incidence of honors programs falls as the proportion of African Americans rises, lending credence to those who charge that these programs seem to exclude at least some minority students.

The negative relationship between the presence of African Americans and the availability of honors programs persists even after controlling for institutional size and curricular characteristics relevant to transfer. Because honors programs can be important means of gaining access to senior institutions, especially for students who are underrepresented in four-year colleges (Outcalt, 1999), this finding indicates a potentially serious impediment for African American students hoping to use community colleges as stepping stones to the baccalaureate. However, these conclusions must remain tentative pending further investigation of actual enrollment and success in honors programs according to student characteristics, such as ethnicity, as well as in-depth research into relationships among institutional size, location (it is possible that geographic characteristics are related to both curricular and student body factors), and racial and ethnic composition.

Implications for Future Research

As serious as these limitations are, they point to promising avenues for future study. If more extensive data were available, one could examine the number of honors courses taken by students (especially as stratified by minority status), performance in these programs, and the predictive power of these programs for transfer to and success in senior institutions. This research could be used to investigate general community college academic climates and missions, particularly as they are related to transfer. In addition, one could examine relationships between these factors and other institutional characteristics, such as the proportion of minority students. Such studies would have a strong bearing on charges that honors programs contribute to elitism and enhanced transfer rates.

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This chapter discusses the impact of immigration on English as a Second Language (ESL) programming. Subsequently, the author presents the status of ESL course offerings in community colleges as reflected in the Center for the Study of Community Colleges' 1998 Curriculum Project, reviews existing ESL curriculum course designs, and summarizes the implications for community colleges.

English as a Second Language in the Community College Curriculum

Elaine W. Kuo

The importance of English as a Second Language (ESL) programs cannot be overlooked for the estimated 32 million people in the United States whose native language is not English (Ignash, 1994a). This group includes refugees, migrants, immigrants, permanent residents, foreign students, and citizens, who constitute an increasingly sizeable segment of our population. However, some of these individuals are limited English proficient (LEP) and quickly discover restricted opportunities due to their poor English skills. These individuals have "difficulty in reading, writing, speaking, and understanding English to the extent that [they are unable to] benefit from educational situations dominated by English language activity" (Rezabek, 1981, p. 5). Many of these people attempt to develop their English skills at community colleges, through ESL programs, where English language instruction is provided to those who are not proficient in English (Ignash, 1994b). Therefore, ESL programs can potentially facilitate the transition to an English-language-dominated society.

The community college has become a key resource for English language learners. The community college is designed to be flexible and to serve a multiplicity of needs, from academic transfer preparation to adult education. For those who need them, ESL programs also serve a range of needs, from developing basic English conversational skills to baccalaureate degree aspirations. As four-year institutions continue to shift the role of English proficiency to the community colleges, two-year institutions find themselves closely tied to their mission of being "a community college meeting community need" (Hollinshead, 1936, p. 111). Many of the students realize that improving their English will provide the entree to better

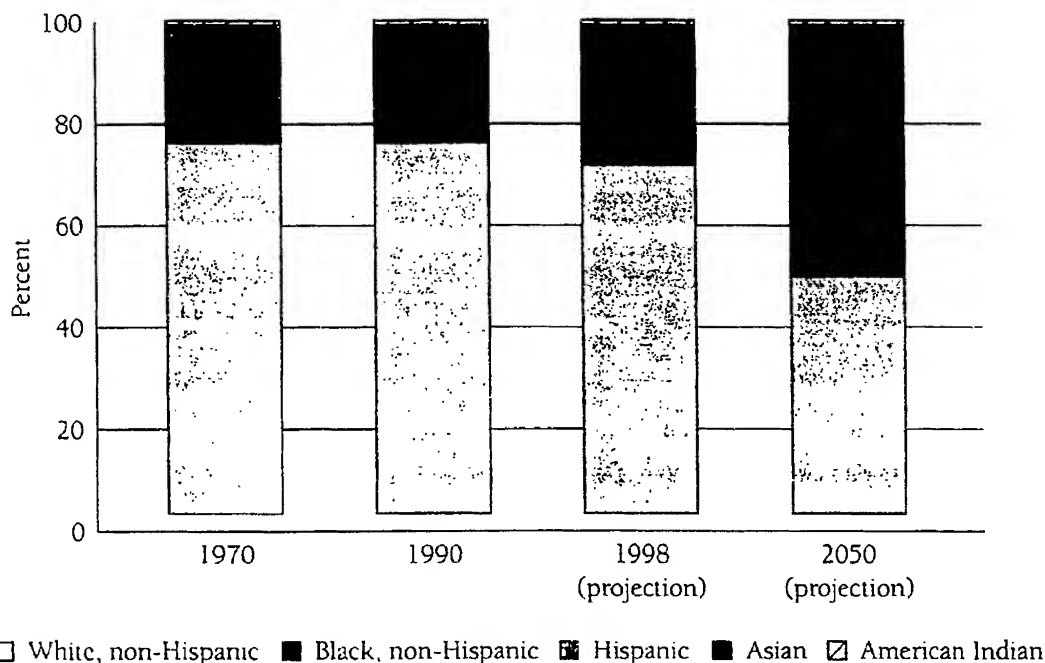
employment opportunities (President's Initiative on Race, 1998). Because language is viewed as the largest barrier to LEP students' academic and vocational success, the steadily increasing demands for ESL courses indicate that community colleges will continue to provide curriculum and services promoting ESL development.

The impact of existing ESL curricula is increasingly scrutinized because social mobility is often tied to occupational status and income, and thus to educational attainment (Pascarella and Terenzini, 1991). Nonnative speakers of English need to master their new language in order to develop the necessary skills to survive in American society (Ignash, 1995). However, an investigation of existing ESL programs at the community college level is needed before their effectiveness can be determined.

To better understand the current ESL curriculum available at community colleges, this chapter briefly discusses the impact of immigration on ESL course offerings, presents the results of the Center for the Study of Community Colleges' (CSCC) 1998 Curriculum Project, and reviews existing ESL curriculum course designs.

Immigration rates directly affect the demand for ESL courses. Current patterns suggest that immigration from non-English-speaking countries will continue at a steady rate (U.S. Bureau of the Census, 1997). As almost three-

Figure 7.1. Racial and Ethnic Composition of the Population



Source: President's Initiative on Race, 1998.

fourths of the immigrants currently arriving in the United States are of Hispanic and Asian descent, these two communities will dramatically increase in size (see Figure 7.1). The majority of immigrant foreign-language speakers need assistance in English in order to take advantage of various educational and employment opportunities. Both in the classroom and in the workplace, specialized English skills are necessary (Buchanan, 1990; Misick and Santa Rita, 1996). Therefore, increased immigration will increase existing demands for ESL courses.

The demand for ESL courses is beginning to exceed the supply (Fitzgerald, 1995). For example, in the 1991 National Curriculum Study, Ignash (1994a) examined eight community colleges that already had ESL student enrollments over one thousand and noted that all of these institutions anticipated an increase in demand for ESL courses over the next ten years. As a result, there may be increasing concern that these programs divert resources from other students, and arguments may be made that community colleges need to define the boundaries of the ESL curriculum in order to best serve student needs.

Community colleges enroll two types of LEP students: those who study English for immediate job marketability and those who view English acquisition as a step toward eventual transfer to a four-year institution (Buchanan, 1990; Misick and Santa Rita, 1996; Gray, Rolph, and Melamid, 1996). The needs of these students diverge; therefore ESL programs need to provide both functional and academic English language courses. Consequently, it is important for community colleges to determine how effectively they are serving and supporting the varying needs of their LEP students.

The success of ESL programs needs to be investigated through further research. As community colleges continue to serve the LEP, they will have an increasing stake in the outcomes of these students. By examining these course offerings, institutions will be able to analyze, compare, and assess their ESL programs better. Ultimately, research on the ESL curriculum can help institutions to focus resources more accurately on student need.

Results of the 1998 Curriculum Project

The first CSCC curriculum study began in 1975 to investigate the liberal arts offerings in the community college system. Subsequent studies analyzed all credit course offerings in the curriculum (for further description, see Cohen and Ignash, 1994). ESL course offerings were coded as a subcategory under the larger subject area of foreign languages because these courses are essentially teaching a second language. For comparison purposes, each follow-up study placed ESL in the same coding category. The most recent study determined the availability of ESL classes through a coding process, which involved an examination of the spring 1998 course offerings of 164 community colleges. Credit ESL courses were tallied and totaled for further analysis. The sample examines only credit courses and also does not

Table 7.1. Percentage of Community Colleges Offering ESL Courses in the Spring Term

1975 (n = 156)	1977 (n = 178)	1983 (n = 173)	1986 (n = 95)	1991 (n = 164)	1998 (n = 164)
26	33	27	38	40	55

account for canceled sections and instances where the lack of demand prevented course availability. The following discussion uses the 1998 curriculum data to explore the locations and types of ESL courses available at the community college level.

The 1998 study reveals that ESL programs are a significant component of the community college curriculum. Out of the sample of 164 community colleges, 90 institutions offer ESL courses, about a 38 percent increase from the 1991 study (Ignash, 1994a). Since 1975, the percentage of ESL course offerings has steadily increased with each subsequent survey such that in 1998 more than half of the community colleges sampled offered at least one class. This is the largest increase since the inception of the CSCC's 1998 Curriculum Project (see Table 7.1).

Location of ESL Courses

Institutional size plays a role in ESL course availability. The majority of ESL course offerings (31.7 percent) are located in larger community colleges, where the total enrollment is greater than 6,142. Of the ninety institutions offering ESL, 23 percent have more than twenty classes available. Within this sample, more than half of the larger community colleges offer more than twenty courses (see Table 7.2). For example, out of the twenty-six California community colleges in the sample, twenty-two have large enrollment numbers. Not surprisingly, this state has the most extensive ESL curricula in the study sample, with ten institutions each offering more than forty classes.

Geographic location of the college can also influence the number of ESL courses offered. Immigration patterns reveal migration toward large metropolitan cities, mainly due to the availability of employment opportunities (Levine, 1995). Based on these patterns, the Western, Midwestern, and Middle Atlantic states account for 71 percent of the ESL curriculum. These areas include major metropolitan cities such as San Francisco, Los Angeles, Chicago, and New York, which are located in states that have higher percentages of nonnative English-speaking immigrants (Ignash, 1994a; Ong and Hee, 1993). The eleven institutions that offer only one ESL class are primarily located in the Midwest. Outside of the metropolitan Chicago area, there may be less demographic diversity, resulting in decreased ESL course need and demand.

Table 7.2. Community Colleges Offering More Than Twenty ESL Courses in Spring 1998 by Size

	<i>Small</i> (enrollment \leq 2,748)	<i>Medium</i> (2,749 \leq enrollment \leq 6,141)	<i>Large</i> (n \leq 6,142)
Over 20 ESL course offerings	(n = 2) 15 percent	(n = 5) 20 percent	(n = 30) 51 percent

Table 7.3. 1998 Curriculum Project Participants Reporting Large ESL Programs

<i>Community College</i>	<i>Number of ESL Courses</i>	<i>Total Number of Courses</i>	<i>As Percentage of Total Courses</i>
El Paso Community College (TX)	224	2,489	9
Imperial Valley Community College (CA)	134	893	15
Passaic County Community College (NJ)	134	705	19
American River Community College (CA)	99	2,475	4
Sacramento City College (CA)	94	1,880	5
Bergen Community College (NJ)	77	1,540	5
CUNY Bronx Community College (NY)	71	1,420	5
San Diego City College (CA)	64	1,067	6
Mission College (Santa Clara, CA)	62	1,240	5
Delgado Community College (LA)	61	872	7

The impact of geographic diversity on ESL course availability can also be examined at the institutional level. Table 7.3 reveals the ten community colleges that report the largest ESL programs, providing additional insight into specific institutions that serve high portions of nonnative English speakers. Again, immigration patterns account for the presence of five California community colleges, which represent half of the top ten institutions. For example, California's Imperial Valley Community College's large number of ESL course offerings reflects its location in a high Spanish-speaking area. That El Paso Community College in Texas represents the greatest number of ESL courses available at one institution is not surprising because it also offers the largest number of courses overall.

ESL courses make up a surprisingly large percentage of the total course offerings at these ten colleges. With the exceptions of Imperial Valley Community College in California and Passaic County Community College in New Jersey, most large ESL programs contribute to less than 10 percent of all available courses. Institutions with expansive ESL offerings continue to offer a variety of courses. For example, out of the 5,824 language courses offered by all colleges in the study, 40 percent of the sections are for ESL while 46 percent are foreign language classes. The remaining percentage consists of primarily sign language courses. In most cases, larger institutions have more flexibility to offer expanded programs in many subjects.

Types of ESL Courses

The transferability of ESL courses can be affected by the objectives of students. Although the transfer function is one of the primary missions of the community college (Cohen and Brawer, 1996), ESL programs often serve immediate employment and marketability needs (Buchanan, 1990; Misick and Santa Rita, 1996; Gray, Rolph, and Melamid, 1996). These diverging interests may explain why 27 percent of community colleges offer a combination of ESL course types that includes both transferable and nontransferable classes. Not surprisingly, institutions that offer this flexibility and choice to their students tend to be larger community colleges, because they usually offer more course choices overall.

Curriculum policy may account for variations in ESL course types among various community colleges. Unlike other states, California tends to offer a mix of transferable and nontransferable ESL courses (see Table 7.4). This could be attributed to California's public higher education system accepting ESL courses at all of its levels. For example, at American River College, Composition and Reading, a course geared toward ESL students, is accepted both at the California State University and in the University of California system (*American River College Catalog*, 1997-98). This may be different in other states, where the existing articulation policies between community colleges and the public university system are less coordinated and defined. Public universities that emphasize college-level work may have less interest in promoting and sustaining an ESL curriculum. Therefore these institutions may be less inclined to accept ESL courses for transfer credit.

Availability of distance courses suggests that technology is a developing tool in teaching English proficiency. Distance courses in ESL are located mainly in California community colleges with large enrollments. Imperial Valley Community College lists nineteen courses while Mission College is second, with four available sections. However, most institutions with distance capability offer only one class using this technology. The catalogue descriptions indicate that although most of these courses are aimed at introducing American culture, basic skills classes were also offered. For exam-

Table 7.4. ESL Course Type Based on 1998 Participants with Large Programs

State	Transfer and Nontransfer Offered	Only Nontransfer Offered
California	15	10
New York	0	8
New Jersey	0	6
Texas	2	4
Arizona	0	6

n = 51

ple, at Mission College, in Santa Clara, California, the distance courses are titled "American Culture and Language 1" and "American Culture and Language 2." Together they serve as a year-long course "designed to help the student develop basic strategies for communicating in the English language" (*Mission College Catalog*, 1998, p. 114). One of Bakersfield Community College's ESL distance classes emphasizes tools for college survival, which include study and personal life skills; however, another course, "Basic Grammar and Syntax 1," focuses on the mechanics of writing (*Bakersfield Community College Catalog*, 1996-98).

Students interested in the transfer option, discovering that most ESL courses cannot be counted toward general education requirements, can experience decreased levels of persistence and motivation. In general, a majority of the ESL courses are nontransferable, with three-fourths of the colleges having solely a nontransfer ESL curriculum. Therefore, most ESL instruction offers few credits toward graduation and do not fulfill any degree requirements. ESL instructors point out that their students are really mastering a second language and that although many of these students are academically prepared for the college credit courses, their lack of English proficiency prevents classroom understanding and success (Gray, Rolph, and Melamid, 1996). Therefore, students who bypass ESL coursework, even though they do not have complete English mastery, often suffer in and fail the college-level courses and become disheartened.

Although ESL is primarily intended to prepare students for college-level coursework in English, it can also serve other needs. For example, ESL programs can include classes focused on American social and civic traditions. Cerritos College in California offers a course titled "American Expressions and Culture" in which "students study American expressions and American social customs, such as those regarding time, dress, guest behavior, gestures, and selected public encounters" (*Cerritos College Catalog*, 1997-98, p. 178). ESL courses can also help with the enculturation process by revealing to students the institution's expectations regarding class participation, homework, and grading. Additionally, ESL programs can operate in tandem with counseling and support services to help immigrants with their academic and cultural transition.

ESL Curriculum Design

Although the 1998 Curriculum Project provides an overview of the availability and distribution of ESL courses across the community college system, an examination of the course catalogues from a sample of twelve institutions reveals that there is little standardization in the pedagogical approach taken by the community colleges. Although these twelve institutions were selected primarily because of their many ESL course offerings, two institutions are highlighted for their extensive and unique ESL support services. Only credit courses are considered in this discussion. It must be noted, however, that at many institutions ESL classes are also available for

noncredit. Noncredit curricula can set students off from the rest of their peers, thus lowering faculty expectations and student persistence rates (Ignash, 1995; Gray, Rolph, and Melamid, 1996).

The ESL curriculum, as presented in the course catalogues, does not always address the distinction between conversational English and academic English. Programs focusing primarily on language mechanics fail to recognize the different aspects involved in developing English proficiency (Song, 1995). For example, courses at Bergen Community College, New Jersey, are focused mainly on grammar and writing, "designed to improved fundamental academic skills in areas of reading and writing . . . [and to] . . . introduce students to the basic grammar of the English simple sentence" (*Bergen Community College Catalog*, 1997-98, pp. 137-138). Delgado Community College in Louisiana, with courses titled "Developmental Composition and Developmental Reading" and "English Composition I and Analytical Reading," also emphasize language mechanics (*Delgado Community College Catalog*, 1997-98). On the basis of these course descriptions, it appears that these institutions neglect the oral communication component of mastering the English language.

Some community colleges recognize the importance of being able to develop English skills beyond the academic classroom setting. Mission College emphasizes communication skills and the ability to apply these newly forming skills in various settings. Course titles include "Pronunciation and Listening," "Basic English as a Second Language in the Workplace," and "Academic Speaking." The Mission College courses seem to differentiate between spoken and written, conversational and academic English. This practice allows students to connect the structure and mechanics of the language to their own use of English (Comacho, 1995; Misick and Santa Rita, 1996).

As noted earlier, ESL courses can play an important role in helping nonnative English speakers acclimate to their new environment. American River College in California addresses employment concerns by offering multiple sections of "Workplace Listening and Speaking," at the beginning, intermediate, and advanced levels. This series of classes "includes instruction in the effective listening techniques, communication and pronunciation skills needed for success in the workplace" (*American River College Catalog*, 1997-98, p. 109). Additionally, Passaic County Community College lists courses titled "ESL Reading in American Culture I and 2" which "develops awareness of American culture by reading and analyzing materials regarding American society" (*Passaic County Community College Catalog*, 1997-99, pp. 87-88). The skills developed in these classes assist in the adjustment process because they are applicable both in and outside the classroom.

Given the benefits of integrating language mechanics, verbal skills, and an understanding of the cultural norms, some community colleges offer ESL courses in all of these areas. In Texas, El Paso Community College's com-

prehensive ESL program allows students to create their own curriculum and feel included in the college environment. The emphasis is on sustaining student interest and persistence, which are integral components to mastering English (Ignash, 1995). Thus English proficiency courses are included along with subject material from the more popular majors, lab activities are instituted to help with retention, and bilingual counselors and materials are available to assist with students' needs. For example, the ESL section of the catalogue is printed in both English and Spanish. Connecting the cognitive skills to social survival skills will help students better navigate environments inside and outside the classroom (Kimmel and Davis, 1996).

The structure of the ESL programs varies by institution. Although all community colleges have an English assessment process, some community colleges allow students to select their own sequence of ESL coursework, usually with counselor consultation. Others, such as Passaic County Community College, offer a more structured design. These courses are arranged in a specific format and students have to follow the course schedule in order to graduate from the ESL program.

The academic department with which an ESL program is associated can vary with each institution. In most cases, ESL courses are grouped in the course catalogues under a separate heading. In some cases, the ESL program is divided between departments. At Pasadena City College, California, ESL classes are under the English, foreign language, and communications departments. Imperial Valley College's ESL courses are part of the English department, thus projecting more of a remedial approach. Perhaps the curricular emphasis has an impact on the academic department of the ESL program at a community college.

Community colleges attempt to serve the multiple needs of their ESL students by offering a variety of services to supplement the curriculum. Many institutions, such as Passaic County Community College, offer students personal, academic, and employment counseling services. Others, such as San Diego City College, have established centers on campus that also offer tutoring and other opportunities to reinforce students' English skills. William Rainey Harper College in Illinois is an unusual example of an institution striving to serve all the needs of its community members. Its ESL program even has specific classes for the deaf and hearing impaired. These wide-ranging examples of courses and services illustrate how community colleges continue to be responsive to ESL students' needs.

Implications for Community Colleges

The increasing presence of ESL courses across the community college system can heighten the pressure to demonstrate the effectiveness of these courses through various student learning and outcome measures. When Bronx Community College noted that the students participating in their ESL tutoring program failed to develop long-term study skills, they realized the

limitations of the traditional tutoring interaction (Misick and Santa Rita, 1996). Therefore, instead of focusing solely on the subject material, the tutors were trained to engage their students actively with the course material in order to increase comprehension, understanding, and self-confidence. Although there are other institutional attempts to move toward this student-centered approach to ESL (Misick and Santa Rita, 1996), the main concern about the current ESL programs is that their full impact is unknown (Ignash, 1995). Even at Bronx Community College it is unclear how much language capacity and understanding develop when the tutoring relationship is inconsistent and sporadic. The transitory status of the students as well as varying individual objectives can complicate measurement efforts. It is difficult not only to track these students but also to determine the point of assessment.

Concerns about assessment lead to debate over program design and implementation. For example, how much ESL coursework is enough? Students interested in transferring may need additional support and guidance in order to be adequately prepared. Thus, administrators will have to consider how testing and placement are currently conducted. To further ensure the academic success of students, perhaps an English proficiency requirement for LEP students should be introduced so that these individuals would have to enroll in ESL courses before entering mainstream academic classes (Gray, Rolph, and Melamid, 1996). Furthermore, clearly defined articulation agreements between community colleges and four-year institutions would help increase student preparation for the transfer process. The interest in student success forces institutions to examine the caliber of their programs and can lead to quality control efforts.

The strength of existing ESL programs can be enhanced through collaborative efforts. As reflected through the course catalogue analysis, ESL curricula are organized in a variety of ways by different institutions. Gray, Rolph, and Melamid (1996) note that this arrangement can be frustrating because instructors can become overwhelmed when developing their own curricula and assessment tools. One strategy for creating a more standardized approach to curriculum, pedagogy, course structures, and assessment systems could be an increase of information sharing across community colleges. For example, a collection of course guides and test materials could help prevent duplication of existing efforts and allow for innovation in ESL programs. By working together, community colleges may be able to use their resources more effectively to the advantage and benefit of their students.

Conclusion

The CSCC's 1998 Curriculum Project provides some insight into the curriculum and services available to ESL students. Even by the most conservative estimates, this nation will continue to see an increase in the

immigration pattern, especially for those individuals from non-English-speaking countries (Smith and Edmonston, 1997). In addition, international students are choosing to study in the United States more than anywhere else and increasing numbers of these students are arriving to attend our community colleges (Baldwin, 1991). This continuous influx of potential students will create additional pressure on ESL programs for improved quality and increased quantity. In fulfilling their mission to serve their communities, community colleges will certainly respond to this increasing demand.

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Multicultural education in the curriculum has been widely discussed; however, there is little evidence that it has permeated the curriculum. The existing canon is being challenged, nevertheless, and some improvements are taking place, as depicted in this chapter.

Status of Multicultural Education in the Curriculum

William E. Piland, Alexandria Piland, Shelly Hess

Multiculturalism is a term with many definitions. Miller (1993) searched 214 titles on the subject and found the topic to be expansive, covering such areas as racism, sexism, prejudice, global studies, bilingual education, women's studies, minority issues, and discrimination. Bensimon (1992, p. 3) described multiculturalism as focusing on how "gender, race, sexual orientation, and class differences are inscribed in political . . . and cultural practices." A consensus of Valencia Community College faculty may have defined the multicultural curriculum most accurately: "The intent to include previously excluded groups in both the curriculum content and teaching methodologies, the effort to make cultural stories as complete as possible, a recognition of academic integrity, and a reflection of the composition of community college populations" (Willard, 1993, p. 3).

The Changing Canon

Scholars are greatly divided on the issue of multicultural education in the curriculum. Those who argue against it claim that the foundation of the canon will crumble if multicultural education continues in this country, and that multicultural curriculum ignores European history, atrocities committed by minority cultures, and the fact that Europeans were also treated poorly. Additionally, opponents claim that multiculturalism destroys the unity that the mainstream American culture fosters. Conversely, those who are in favor of a multicultural curriculum assert that the canon is continually being challenged from within, that a multicultural curriculum should be included in the established canon, and that the

belief that multiculturalism is divisive assumes that Americans are in some way already united.

The canon is being challenged by new intellectual perspectives other than multiculturalism. "Postmodern scholars . . . are challenging the dominant positivist interpretations and paradigms within their disciplines and creating alternative explanations and perspectives" (Banks, 1993, p. 94). Simply put, transformative knowledge, or new knowledge that changes a previous way of knowing, always challenges existing knowledge.

Although Chavez (1994) asserts that enlightenment comes from access to the academy, Banks (1993) states that multiculturalism "is a movement designed to empower *all* students to become knowledgeable, caring, and active citizens in a deeply troubled and ethnically polarized nation and world" (p. 88, emphasis added). While those who are from a minority culture "experience . . . a sense of empowerment" (p. 95) from a multicultural curriculum, those who might benefit the most from a multicultural education are those who come to class with a viewpoint that has been fostered by the dominant culture. Giles (1998) quotes a recent survey in which 48 percent of college students said they were prejudiced against homosexuals, and 15 percent said they "are biased against African-Americans and Hispanics" (p. 1). Certainly, positive experience with minority cultures, or at the very least, knowledge of the "other's" culture, would make objectification, dehumanization, and prejudice more difficult.

The National Scene

Although multiculturalism in the curriculum generates a great deal of discussion and debate, there is little evidence that this concept has permeated the curriculum to any appreciable extent (Rendon, 1995; Stoll, 1995). A 1992 study (Levine and Cureton, 1992) of multiculturalism in universities and colleges found that less than one-half of universities and less than one-third of community colleges offered ethnic studies courses. A national study of 350 community colleges (Piland and Silva, 1996) reported that 38 percent of the colleges offered courses in ethnic studies and 37 percent had courses in women's studies. The disciplines most active in including multicultural content were identified as history, sociology, English, the social sciences, and the humanities. More than one-half of the institutions reported that students were not required to take multicultural courses to fulfill a general education requirement. Further, less than half the respondents indicated that general education courses had been infused with multicultural content.

The Center for the Study of Community Colleges (CSCC) has examined the liberal arts curriculum since 1975. In CSCC's most recent study, conducted in 1998, multicultural education was identified in three separate subcategories within an overall category of social and ethnic studies. These subcategories were ethnic and cultural courses, women's studies, and other, including disability-oriented courses. Multicultural education was also rec-

ognized in the history area within the subcategories of general history and the history of special groups. The study reported that the percentage of colleges offering ethnic studies had declined from 1975 (15 percent) to 1991 (9 percent), and finally had risen in 1998 (26 percent). Women's studies courses had increased from 3 percent in 1975 to 17 percent in 1998. Community colleges offering courses dealing with disabilities declined slightly from 12 percent in 1975 to 11 percent in 1998. The percentage of colleges offering special groups history courses increased from 26 percent in 1975 to 36 percent in 1991 to just over 50 percent in 1998. While the percentage of community colleges offering these courses has in most cases increased from 1991 to 1998, the percentage of students enrolled in these courses declined slightly from 21 percent to 20 percent.

A review of thirty-nine community college catalogues from the CSCC study illustrates a wide variety in the way multicultural courses are considered for general education requirements. Thirteen colleges have a clearly designated multicultural requirement. These colleges have a specific general education category requirement, typically identified as multicultural studies; ethnic, race, and gender awareness; or cultural pluralism. Students must select at least one course from the category in order to meet the general education requirement. Most of these colleges are located in California, which has a community college minority student population of more than 53 percent. Twenty-two colleges have a long list of courses, usually within the social sciences or humanities, including multicultural courses that can be elected by students to fulfill a general education requirement. Some colleges with this cafeteria approach to general education identify a subcategory such as ethnic studies within a larger general education category (such as social sciences) that includes some multicultural education courses. Most colleges simply supply a long list of courses that include a few ethnic or gender studies-oriented courses. Other colleges have no real requirement for multicultural education courses in general education. These colleges list courses that can fulfill a general education requirement without including any ethnic, gender, or disability studies courses.

The catalogue review reveals that the number of multicultural courses, including ethnic studies, women's studies, and disability-oriented courses, varies by college size and, to an extent for ethnic studies courses, by the geographical location of the colleges. For example, a large community college in Southern California, Palomar College, offers twenty-six ethnic studies courses (mainly Africana studies, American Indian studies, and Chicano studies), one women's studies course, and eight courses dealing with disabilities (primarily American Sign Language courses). Another large college, Prince George's Community College in Maryland, offers a substantial number of ethnic studies courses, particularly African American-oriented courses in history, art, and literature. A medium-sized college, the Community College of Vermont, offers three ethnic studies courses, four women's studies courses, and five courses dealing with disabilities. A second medium-sized college, Northland Pioneer College in Arizona, offers a general course in racial, gender, and ethnic studies.

Finally, one small college, Eastern Wyoming Community College, offers two ethnic studies courses, and another small college in Kentucky, Hazard Community College, offers nine ethnic studies courses, including African American and Native American studies, and three women's studies courses.

These various national and state studies, some of which go back almost twenty-five years, demonstrate that some effort is being made to include multiculturalism in the community college curriculum. Yet the number of courses offered and the number of students who experience this type of learning are relatively small. It is safe to say that an overwhelming majority of students will have little or no exposure to multicultural education in their programs of study, unless there is a concentrated effort to infuse this content into general education and vocational courses, beyond ethnic studies, women's studies, and disability-oriented courses. In far too many cases, multicultural education, usually in the form of a single-subject course such as black history, is one elective among many electives in the smorgasbord of general education offerings.

Related Studies of Multicultural Education

As described earlier in the section on the national scene, based on the results of the CSCC study, few students (slightly more than one-fifth) in the study experienced multicultural education courses, because such courses are typically electives within the social sciences area of general education. Furthermore, the students who select themselves into these courses may not be the ones who should experience this type of education. Some faculty have infused multicultural content into their courses and some students have experienced this form of education (Santos, 1996). These faculty and students have reported on their experiences with multicultural education.

Faculty Course Infusion Efforts. In an investigation of courses including multicultural content in California community colleges (Piland and Barnard, 1996), more than three-quarters of faculty reported infusing content with discussion and materials related to racial diversity, gender issues, cultural diversity, sexual orientation, and social class issues. The largest group of these faculty indicated that their goal in infusing multicultural content into their courses was to promote social structure equality and cultural pluralism and to prepare citizens to work actively toward social structure equality.

Student Experiences with Multicultural Education. In a study of 434 students in Southern California community colleges, students provided information about their experiences with multicultural education in ethnic studies courses or other courses that were infused with multicultural content (Piland, Hess, and Piland, 1999). Study findings indicated that students learned about cultural artifacts, characteristics and history of specific ethnic groups, contributions of minorities to various disciplines, and injustices suffered by people of various cultures. Overwhelmingly, students reported

learning more in courses with multicultural content than in other courses. Finally, students indicated that they desired more courses with multicultural content to help them understand people from other cultures, learn more about their own cultures, and succeed in a multicultural world.

Multicultural Course Configurations

Multicultural education emerged in the 1960s in the aftermath of the civil rights movement. The original purpose of multicultural education was to correct the long-lived de facto policy of assimilation (Burnett, 1994). Since its introduction, multicultural education has taken many varied forms, including single group studies and course infusion.

Single Group Studies. These studies explore the culture or history of underrepresented groups who are differentiated from the dominant group by race, ethnicity, gender, language, or tradition. Single group studies courses are the types of courses identified in the CSCC study. These courses investigate groups who experienced or continue to experience oppression, discrimination, and inequality (Piland and Silva, 1996; Swayze, 1994). Common examples of ethnic studies include African American, Native American, Asian American, and women's studies courses.

Single group studies help students from the dominant group develop sensitivity, awareness, and knowledge of underrepresented groups. Additionally, single group studies courses promote academic success for traditionally underrepresented groups. Students develop a sense of pride when they realize that their beliefs and cultures are worthy and valuable (Pavel and Colby, 1992).

Although there are many benefits to single group studies in multicultural education, there are also some limitations. First, it is not enough for students to learn only about their own culture. As shown in the CSCC study, not all colleges call for ethnic studies courses as part of their general education requirements. In community colleges where vocational programs are prominent, most students will get little or no experience with these courses. Furthermore, colleges with low nonwhite enrollments are less likely to offer ethnic studies courses (Swayze, 1994).

Course Infusion. This approach integrates multicultural subject matter into existing courses (Piland and Silva, 1996). The curricula draw from and build on the experiences, contributions, knowledge, perspectives, culture, and history of underrepresented groups (Kitano, 1997b). The CSCC study does not identify the extent of infusion in the community college curriculum because it does not focus on this level of detail in individual discipline-based general education courses.

According to Banks (1993), there are four approaches to infusing multicultural content into the curriculum. Level 1, the contributions approach, concentrates on multicultural heroes and holidays. Level 2, the additive approach, adds multicultural materials and themes into the curriculum.

Level 3, the transformative approach, changes the basic structure of the course such that the focus is not only on the contributions of multicultural and diverse groups but also on the perspectives and viewpoints of various groups. Finally, Level 4, the social action approach, encourages students to integrate their knowledge of change and apply it to specific situations that need social change (Kitano, 1997b).

Curriculum Transformation

As described earlier, most multicultural educational experiences appear within the community college curriculum in single subject courses as a part of general education electives. While this approach to the curriculum has some advantages, it also affects relatively few students in the community college student body. The major faculty body in California, the Academic Senate for California Community Colleges, has stated that the total curriculum should be infused with multicultural content (Academic Senate for California Community Colleges, 1995).

Multicultural course change means the modification of a given course to incorporate multicultural content, perspectives, and strategies appropriately. Such change has as its objectives to provide a more comprehensive, accurate, intellectually honest view of reality; to prepare all students to function in a multicultural society; and to meet better the learning needs of all students, including those who are diverse (Kitano, 1997a). This type of change leads to a "transformed" course.

A transformed course challenges traditional views and assumptions, encourages new ways of thinking, and reconceptualizes the field in light of new knowledge and ways of knowing. Teaching methods capitalize on the experience and knowledge that students bring and encourage personal as well as academic growth. Alternatives to traditional assessment procedures are used, including self-evaluation and projects that contribute to real-life change (Kitano, 1997b).

The transformed course applies most readily to disciplines in which knowledge is socially constructed. However, all disciplines can broaden students' views. For example, instructors in the "hard" sciences and vocational fields can incorporate readings and presentations by diverse professionals and guest speakers, acknowledge the contributions to the field by members of underrepresented groups, and discuss the variety of cultural perspectives on the field. The major limits to content transformation are the instructor's multicultural knowledge, creativity, and willingness to change.

Conclusion

Why are only a minority of students being introduced to a multicultural curriculum, as depicted in the CSCC study? The study indicates some progress in incorporating multicultural education into general education

since 1975. Given all the discussion and controversy that surround this issue, the changes can be considered moderate, at best. The reality is that relatively few students are learning about specific ethnic, gender, or disability studies within courses devoted exclusively to these topics. Community colleges continue to offer multicultural courses as electives, and when students are allowed to self-select for "specialty" classes, those who would gain the most may not select a multicultural curriculum. If, however, the canon becomes infused with multiculturalism, all students can profit.

A blending of diverse views with the existing knowledge, or canon, will help to include varying points of view throughout the different courses and can even help to construct or transform new knowledge. As institutions of higher learning, community colleges must be involved in transforming old knowledge and exploring innovative ways of thinking. Merely transmitting an existing canon to students is no longer acceptable. Because students construct their own knowledge, they must encounter multicultural content to analyze their realities critically.

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This article reviews the current status of distance education in general and at the community college level in particular. It then describes the distance-education-related findings from the Center for the Study of Community Colleges' 1998 Curriculum Project.

Scratching the Surface: Distance Education in the Community Colleges

Carol A. Kozeracki

It is perhaps somewhat ironic that community colleges, whose *raison d'être* is to serve and educate local residents, are leading the higher education sector in developing distance education (DE) courses, which have the potential to reach students across the globe. According to a 1995 national survey of higher education institutions, 58 percent of community colleges were offering at least one DE course (U.S. Department of Education, 1997). However, access is also central to the mission of the community college, and for many students, including residents of rural communities (MacBrayne, 1995), individuals with family commitments (Livieratos and Frank, 1992), and working adults with limited time (Hyatt, 1992), DE provides their only opportunity for college participation. For these and other reasons, the availability of DE courses has grown, although not to the extent that related publicity and research on this topic have flourished. This chapter reviews the current status of DE in general and at the community college level in particular, and then describes the DE-related findings from a national community college curriculum survey.

The Definition and Availability of Distance Education

The predecessor of today's largely technology-oriented DE courses is the correspondence course. The first documented offering of such a program occurred in Boston in 1728 (Holmberg, 1986). During the twentieth century, the available tools for remote communication expanded from pen and paper to include radio, television, videos, and computers. The introduction of these additional media increased enormously the appeal of DE for adults and educators (Verduin and Clark, 1991).

Today, most organizations that monitor DE do not even include correspondence courses in their counts. When the Department of Education surveyed higher education institutions about their distance course offerings, its definition was "education or training courses delivered to remote (off-campus) location(s) via audio, video, or computer technologies" (U.S. Department of Education, 1997, p. 3). The most widely used guide to DE programs, *Peterson's Distance Learning* (1997, p. vii), restricts its definition to "the delivery of educational programs to off-site students through the use of technologies such as cable or satellite television, video and audiotapes, fax, computer modem, computer and video conferencing, and other means of electronic delivery." Conversely, the Distance Education and Training Council (DETC), the accrediting agency for independent DE institutions, defines the subject more broadly. "Distance education (or correspondence/home study) is the enrollment and study with an educational institution which provides lesson materials prepared in a sequential and logical order for study by students on their own. When each lesson is completed the student makes available, by fax, mail, or computer, the assigned work for correction, grading, comment, and subject matter guidance by qualified instructors" (DETC, 1999).

There are three main sources of distance courses for the public: traditional higher education institutions that offer DE as part of their broader curriculum; free-standing DE institutions that offer only, or primarily, remote access classes; and consortia that are a hybrid of the two. Some of these coalitions offer their own degrees while others serve as clearinghouses to advertise the DE courses of traditional higher education institutions.

The extent of DE offerings from the traditional postsecondary sector was measured nationally in 1995 by the U.S. Department of Education (1997). According to that survey, 33 percent of all higher education institutions that responded ($n = 1,203$) offered one or more DE courses to their students during the 1994-95 academic year, and 58 percent of the public two-year colleges did so. An additional 28 percent of community colleges planned to enter the DE market within the next three years. For the institutions that offered distance courses in the fall of 1995, the number of courses offered the prior academic year is broken down in Table 9.1.

Overall, the higher education institutions offered 25,730 courses to 753,640 students. (The enrollment figure is inflated because students enrolled in more than one DE course were counted multiple times.) Community colleges were responsible for 39 percent of all DE courses offered and reached more students (414,160) than the private and public four-year institutions combined. Only 15 percent of the community colleges surveyed offered students the opportunity to receive a degree or certificate exclusively through DE courses (U.S. Department of Education, 1997).

Institutions that offer exclusively DE courses through the master's level are eligible for accreditation through DETC. As of April 1999, DETC had accredited seventy-two institutions, many of which offer vocational training in a specific field of study. Examples of accredited institutions

Table 9.1. Distribution of Institutions Offering a Specified Number of Distance Courses in 1994-95

<i>Number of Courses</i>	<i>Percentage Offering</i>
0	4%
1-4	24%
5-10	21%
11-25	25%
>25	26%

Source: U.S. Department of Education, National Center for Education Statistics, 1997.

include the American Academy of Nutrition, the Truck Marketing Institute, Grantham College of Engineering, the Hypnosis Motivation Institute, the Army Institute for Professional Development, and Home Study International (DETC, 1999). About one-third of the accredited schools are public or nonprofit. According to DETC, these accredited institutions offer more than four hundred courses to more than three million Americans. Enrollments in these institutions range from less than 200 to more than 200,000.

Over the last few years, consortia of institutions have been established, often along geographic lines, to improve the ability of individual colleges and universities to market their programs to the widest possible audience. Some of these consortia exist primarily as Web sites that direct interested students to courses offered by member institutions; others exist as academic entities with the right to grant their own degrees. An early example of a DE coalition, "Going the Distance," which was fostered by the Annenberg Foundation and the Public Broadcasting Service (PBS), brought together sixty community colleges and twenty-two public television stations to increase the enrollment of working adults in telecourses. Enrollment in PBS telecourses grew from 55,000 in 1981 to 400,000 in 1996 (Annenberg/CPB Project, 1994; U.S. Department of Education, 1997). Other current consortia include Western Governors University, with members from seventeen states and Guam, and the Southern Regional Electronic Campus, with institutions representing sixteen states ("Virtual Universities," 1998). In July of 1998, eight community colleges announced the formation of the Community College Distance Learning Network, making available to students nationwide more than five hundred courses via multimedia, Internet, print, videocassette, and audiocassette (Blumenstyk, 1998).

The CSCC Curriculum Project

Researchers at the Center for the Study of Community Colleges analyzed the spring 1998 catalogues, course listings, and enrollment figures of a representative sample of 164 community colleges. Small colleges, with

enrollments of less than 2,750, composed 31.7 percent of the sample; medium colleges made up 32.9 percent of the sample; and large colleges, enrolling more than 6,140 students, accounted for 35.4 percent of the sample. For-credit courses were coded into thirty-seven liberal arts and thirteen occupational categories. Courses designated by the colleges as originating from their campus and being offered at a remote location were marked as DE courses. Overall, 128 of the 164 responding colleges, or 78 percent of the sample, offered at least one distance course. The number of courses ranged from 1 to 67, with a mean of 20 DE classes per institution. Of the 139,083 total courses offered by the colleges, 2,342, or 1.7 percent, were DE courses.

Not surprisingly, there is a direct relationship between the size of a college, which is strongly linked to the overall number of courses offered, and the number of distance courses offered. A statistically significant correlation of .38 exists between the total number of distance courses offered and the enrollment at the college. Of the colleges that do not offer any DE classes, seventeen are small, fifteen are medium, and only four are large. However, the results are different when the relationship between institutional size and the percentage of distance courses offered is considered. Of the eleven colleges that offer at least 5 percent of their total curriculum as distance courses, the greatest number of these (six) are small colleges. So the smaller colleges, despite the high start-up costs involved in developing DE classes, have embraced DE on a relatively broad scale. Perhaps DE classes are seen as a way to increase their student population, and thus their funding, without necessitating a campus expansion.

Compared with the results of the U.S. Department of Education (1997) survey, the community college curriculum project revealed that a greater percentage of the colleges that offer DE courses provide a larger selection per institution. Table 9.1 indicates that similar numbers of responding institutions offered one to four, five to ten, eleven to twenty-five, and more than twenty-five DE courses (approximately 25 percent each). Table 9.2 reveals a different picture among the community colleges.

Of the community colleges providing DE classes, only 15 percent offered fewer than five courses. This figure is dramatically different from the more equal distribution reported by the U.S. Department of Education,

Table 9.2. Distribution of Colleges Offering a Specified Number of Distance Courses

# of DE Courses	# and % of Colleges	% Offering 1 or More DE Courses
0	34 (21%)	—
1-4	20 (12%)	15
5-10	33 (20%)	25
11-25	37 (23%)	28
>25	40 (24%)	31

although it should be noted that the Department of Education figures include four-year institutions as well as community colleges. Thus, community colleges that have ventured into the distance learning market have done so on a larger scale than has the overall higher education sector.

On a regional basis, substantially more community colleges from the West than from the Northeast (fifty-five versus thirty-two) were included in the survey, in keeping with the national distribution of community colleges across the country. Among the four regions, as defined by the National Assessment of Educational Progress (U.S. Department of Education, 1997), substantial differences were found in the average number of DE courses offered. These results are presented in Table 9.3.

As discussed later, the high number of distance courses offered by the central region is due largely to the well-established use of teleconferencing and television broadcasting by colleges in Iowa and Illinois.

As part of the analysis of the curriculum data, courses were coded into liberal arts courses (including humanities, social sciences, natural sciences, and mathematics) and occupational courses (including business, computer and technical, trade and industry, and personal development). Thirty-seven major subject areas were coded in the liberal arts, and thirteen in the occupational fields. Distance courses accounted for 2.1 percent of liberal arts courses and 1.1 percent of occupational courses.

Table 9.4 provides a ranking of the ten liberal arts distance courses offered most often, by major subject area, along with the overall number of courses offered in that area and the percentage of courses for that subject that are available as distance programs. Of these ten subject areas, the percentage of DE classes is highest in the social sciences (economics, history, psychology, sociology, and political science) and lowest in biological sciences, most likely due to the necessity of laboratory experience in upper-level biological courses, and foreign languages, because speaking competency is difficult to assess at a distance. Although not included in the chart, because its availability at the community college level is relatively restricted and the total number of courses offered is extremely low, cultural anthropology presents the highest percentage of classes offered at a distance; 10.9 percent of the 338 cultural anthropology courses could be taken as a DE class. No distance courses were offered in dance, for obvious reasons, or

Table 9.3. Distance Course Availability by Geographic Region

Region	# of Colleges	# of Distance Courses	Mean # of Distance Courses
Northeast	32	303	9.5
Southeast	39	434	11.1
West	55	770	14.0
Central	38	835	22.0

Table 9.4. Distance Education Courses in the Liberal Arts

<i>Subject Area</i>	<i># of Distance Courses</i>	<i>Total # of Courses</i>	<i>% of Courses Offered at Distance</i>
English	240	16,905	1.4
Mathematics	165	11,736	1.4
Psychology	188	4,263	4.4
History	150	3,344	4.5
Foreign languages	124	5,816	2.1
Sociology	98	2,279	4.3
Political science	90	2,254	4.0
Economics	78	1,513	5.2
Biological sciences	57	4,363	1.3
Literature	48	1,614	3.0

in the history, sociology, and philosophy of science, probably because these classes are so rarely offered (twenty-three times across all colleges) that it would be inefficient to invest the resources to create a distance version.

A list of the five general occupational fields, out of a total of thirteen, most often offered as DE classes appears in Table 9.5. It is somewhat surprising that technical education courses, which include computer and Internet skills as well as commercial art and design, are not more frequently offered as DE classes. A possible explanation may be that the curriculum consists largely of classes for novices, who are more likely to want immediate feedback from a teacher. With the exception of marketing, which includes real estate classes (a course of study often done independently), the overall percentage of occupational courses offered at a distance is very low. The single extreme anomaly is entrepreneurship, a subdivision of business and office skills, of which 9.9 percent of the classes are DE classes. It seems fitting that individuals who are sufficiently motivated and have the initiative to operate their own businesses would value the independence that a DE course offers. Not surprisingly, courses related to military science and internships offer absolutely no opportunities for distance learning.

Table 9.5. Distance Education Courses in the Occupational Fields

<i>Subject Area</i>	<i># of Distance Courses</i>	<i>Total # of Courses</i>	<i>% of Courses Offered at Distance</i>
Business/office skills	322	11,158	2.9
Health	113	8,040	1.4
Technical education	76	11,886	.6
Marketing	74	1,317	5.6
Education	44	2,396	1.8

The Twenty-Five Colleges Most Actively Involved in Distance Education

To better understand DE in the community college, a review was conducted of the twenty-five institutions that offered the highest number of DE courses. The number of such courses offered by these colleges ranged from thirty-one to sixty-seven. The overwhelming majority of these institutions—eighteen—were considered large colleges, four were considered medium, and three were considered small. The geographic spread was also skewed. Seventy-two percent were located in the central or western United States while only 56 percent of all the responding colleges were in these regions. Only three (12 percent) of the top twenty-five colleges were from the northeast, and eleven were from only three states: California (five), Illinois (three), and Iowa (three).

A long-established means of offering remote learning, television broadcasting, is still the most common form of DE utilized at these twenty-five institutions. The colleges use one or more of the following: public television (sometimes through an affiliation with the "Going the Distance" program funded by the Annenberg Foundation), cable and public access television, and a college-owned television station (as is the case with the City Colleges of Chicago). Nineteen of the colleges availed themselves of this technology. Most of the programs are repeated at least once to provide greater flexibility, and many of the colleges also make videotapes of the available programs, for viewing either at home or at an on-campus laboratory.

The second most popular medium for DE is the Internet. Most of the catalogues indicate that Internet classes have only recently been implemented, and the number of Internet courses is relatively small. However, in spring 1998 Brevard Community College in Florida offered almost fifty classes via the Internet. Of the nine colleges offering Internet courses, eight also make available at least one other mode of distance learning.

The next most popular type of technology used is two-way video (or audio) conferencing. In these classes, students at remote locations can interact with the faculty member and students at the originating location. The Iowa colleges are part of the Iowa Communications Network, which facilitates such interaction. Other types of distance learning include video- and audio-based classes, and one college offers a music appreciation course over the radio.

Burlington County College in New Jersey specifically advises students that they can earn a degree in liberal arts or business without coming to campus. However, a review of most of the sample makes clear that as of spring 1998, DE is still at the periphery of the curriculum at these colleges. This is of course likely to change in the near future as more of these institutions follow the lead of the eight colleges involved in the Community College Distance Learning Network by increasing the role of computers and intensifying their marketing efforts nationwide. In fact, the spring 1999

catalogues may be substantially different from the catalogues published only one year earlier.

Evaluating Distance Education

Much of the evaluative literature on community college DE consists of findings based on student evaluations and outcomes from single courses or institutions (Hammond, 1997; Hiltz, 1997; McHenry and Bozik, 1997; Minich, 1996). In general, these studies show that the students enrolled in the distance courses do as well as students in a more traditional environment. In fact, Russell (1999) brings together in an annotated bibliography entitled *The No Significant Difference Phenomenon* hundreds of sources that substantiate this claim. However, the Institute for Higher Education Policy (1999) recently criticized many of these studies, arguing that much of the original research on the effectiveness of DE suffers from methodological flaws, that the studies do not address the issue of why dropout rates are so high, and that they have tended to focus on the impact of individual courses rather than on overall programs and on individual technologies rather than on the interaction of multiple technologies. Another study released by the College Board expressed concern that "the result of the new technologies may be to deepen the divide between educational haves and have-nots. . . . Public policy must intervene to narrow the 'digital divide' between whites and minorities, the wealthy and the less advantaged" (Gladieux and Swail, 1999, p. 5). Additional reservations have been posited about the high start-up costs (Easterday, 1997) and about the potential disadvantages to faculty of embracing teaching through technology (Monaghan, 1995). As is clear, it is not yet possible to characterize the impact of DE because additional rigorously designed research needs to be done. However, it can at least be said that DE courses have the potential to provide a comparable education to the traditional classroom experience at a time and in a location that are more convenient to the student.

Conclusion

On the basis of the available literature and the results of the CSCC Curriculum Project, a few general conclusions can be drawn about the state of DE in the community college sector. First, despite the tremendous amount of writing and speculation devoted to DE, it still constitutes a very small piece of the community college curriculum. Although a huge percentage of community colleges—between 58 and 79 percent according to the two surveys cited—are offering one or more DE courses, the total number of courses available is less than 2 percent of the overall curriculum. In addition, the community colleges are still more likely to utilize the well-established technology of television broadcasting and video teleconferencing rather than offer Internet-based classes. Numerous concerns about DE,

ranging from access issues to high start-up costs, have been raised, but the expansion of DE seems unstoppable, especially as a computer terminal becomes as much a part of the American household as a television. The traditional higher education sector is competing with for-profit corporations for students in the DE market, and this competition should stimulate the expansion to an even greater extent. More research should be done to help guide the development of distance offerings, but with or without empirical evidence, the trend will continue. Undoubtedly the community colleges will continue to play a leadership role in the process.

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10

This annotated bibliography lists ERIC documents covering the factors that influence the development of the community college curriculum, including state policy, initiatives or grants from private organizations and foundations, new technologies, and the broadening understanding of the dynamics of teaching and learning.

Sources and Information: Forces Influencing the Curriculum

Jennifer Rinella Keup

When interpreting why the curriculum looks as it does, the factors that have shaped the curriculum must be considered. Shrinking resources in the system of higher education, coupled with a college-aged population growing in sheer size as well as diversity, have led to a large community college student population with a wide array of needs. Add to this the dizzying pace of technological changes and the evolving needs of industry and the challenges posed to community colleges become even more daunting. Many authors and researchers are using the turning of the millennium as an opportunity to assess the purpose and direction of community college curriculum. While the context may be different, the challenges to the community college remain the same—to provide relevant, current courses and programs to meet the needs of students and society at large.

Although the themes may be familiar, the body of literature on community college curriculum is always expanding. The following sources represent the most current literature in the ERIC database on the forces influencing curriculum in community colleges today. ERIC documents (those referenced with ED numbers) can be read on microfiche at approximately nine hundred libraries worldwide. In addition, most may be ordered on microfiche or in hard copy from the ERIC Document Reproduction Service (EDRS) at (800) 443-ERIC. All citations preceded by an asterisk (*) refer to journal articles, which are not available from EDRS. Journal articles may be acquired through regular library channels or purchased from article clearinghouses such as CARL Uncover at (800) 787-7979 or the UMI Articles Clearinghouse at (800) 248-0360. Some of the annotations were drawn from abstracts in the ERIC database. For a list of libraries in your area that

house ERIC microfiche documents, an EDRS order form, or more information about our products and services, please contact the ERIC Clearinghouse for Community Colleges at (800) 832-8256 or via the Internet at ericcc@ucla.edu.

State Policies and Initiatives

California Community Colleges Board of Governors. *The New Basic Agenda: Public Policy Directions for Student Success*. Sacramento: California Community Colleges Board of Governors, 1996. 20 pp. (ED 410 986)

Intended as a guide for community college policymakers in California for the second half of the 1990s, this report identifies relevant curriculum and teaching methods as one of the four main challenges facing the community college system. One of the critical values at the heart of curricular efforts for the California community college system is student-centered learning, including realistic expectations of current and future student populations; recognition of student learning styles, preparation, and challenges; and adequate resources and support to ensure student success. This ethos frames the tactics and goals outlined by the report. The report directs community college faculty and administrators to review and develop degree programs, assess measures of student performance, effectively identify student educational objectives, provide faculty and staff rewards, and analyze education code guidelines to ensure that they all support student learning and reflect a student-centered focus. Additionally, the paper states that community colleges should provide relevant and timely education, be prepared to adjust the curriculum to account for changing learning styles and needs of students, expand opportunities to teach and learn using new technologies, refine the core curriculum, and better educate students about other cultures and societies.

*Henn, E. M., and Witt, A. A. "Not-So-General Education." *Visions: The Journal of Applied Research for the Florida Association of Community Colleges*, Spring 1998, pp. 31-34.

This article recounts changes in legislation and accreditation requirements that mandated a review of the different general education requirements in Florida's twenty-eight community colleges. As a result of these statutes, most community colleges underwent significant changes in the associate of arts curriculum. The objective of the study outlined in the article was to determine the overall impact of changes in the general education requirements in the Florida Community College system. The results of the study indicate that the 1995 legislation succeeded in standardizing the required hours for the associate's degree; however, the data also show that the Florida community colleges have not been successful at standardizing the content of the curriculum. Other than in the areas of basic English, mathematics, and science, Florida has not reached a consensus as to which fundamental areas of knowledge constitute a general

education. The researchers further assert that nonuniform general education curricula ultimately impede student progress toward transfer and raise questions about the quality and breadth of general education at these institutions. In conclusion, the authors suggest that colleges must adopt new paradigms and examine long-held beliefs in an effort to examine how best to serve the students through their curricular reforms.

Indiana State Commission for Higher Education. *State Policy on Associate Degree Programs Offered at Public Institutions*. Indianapolis: Indiana State Commission for Higher Education, 1996. 8 pp. (ED 396 794)

In response to a desire to increase the number of students completing associate's degree programs and to enhance the offerings of associate's degree programs, the Indiana Commission for Higher Education developed a policy for such programs offered at public institutions. Specifically, the policy is designed to clarify degree designations and content, to facilitate transfer in order to maximize the opportunities for students to continue their postsecondary education, and to sharpen institutional missions. The policy divides associate's degrees into the following four categories, each with a clear and unique objective: (1) associate of arts and associate of science degrees, designed to transfer to a broad range of arts and science baccalaureate programs; (2) associate of science in a designated major, intended for transfer to specific, related baccalaureate programs and employment; (3) associate in applied science in a designated major, meant primarily for employment; and (4) associate of general studies, designed primarily for transfer for the relatively small number of students who cannot pursue one of the standard degrees. With respect to implementing the policy, two-year institutions offering the associate's degrees are responsible for initiating discussion of transfer arrangements with other institutions, while four-year institutions are responsible for communicating any requirements in curriculum design to two-year institutions.

Illinois State Board of Education. *Illinois Articulation Initiative: Policy and Procedures Manual*. Springfield: Illinois State Board of Education, 1997. 16 pp. (ED 416 930)

In January, 1993, the Board of Higher Education, the Illinois Community College Board, and the Transfer Coordinators of Illinois Colleges and Universities jointly launched the Illinois Articulation Initiative (IAI). The effort was designed around two key concepts: "associate and baccalaureate degree-granting institutions must be equal partners" in the delivery of lower-division curricula, and "faculties must take primary responsibility for developing and maintaining program and course articulation" (p. 1). This policy and procedures manual was prepared by the IAI Technical Task Force to assist college and university administrators, faculty members, and other staff participating in the initiative. The preface of the manual contains background information on the IAI, including its goal to facilitate

interinstitutional transfer and its initial task of developing a transferable general education curriculum. Subsequent sections include the Board of Higher Education's policies on transfer and articulation, institutions eligible to participate in the IAI, and the requirements for the formation and ensuing role of a baccalaureate major panel. The manual also identifies panel operating procedures, panel member identification, and the steering panel's criteria for endorsement of majors and general education courses. The document concludes with the public university-community college academic leadership conflict resolution statement, and IAI's roles and responsibilities.

Initiatives or Grants for Curricular Reform

Bay, L., and others. *Progress Report on 'America's Communities' AACC Grant—Rockland Community College*. Presented in program book of the National Conference on American Pluralism and Identity, New Orleans, Louisiana. Jan. 1997. 9 pp. (ED 403 955)

This report outlines the progress of the Task Force on College Pluralism and Identity, appointed in 1990, as they develop and introduce new coursework at Rockland Community College, New York, as part of the American Association of Community Colleges' America's Communities project. The goals of this project are to strengthen the teaching and learning of American history, literature, and culture at U.S. community colleges. The primary goals of the action plan set forth by the task force include engaging in a series of activities to review and revise the course in American history and literature and to develop a new interdisciplinary, team-taught course in Latino culture. In addition to a proposal for this course, accomplishments of the initiative include revised learning activity proposals, a colloquium on a novel by a Latina feminist, and a national videoconference. However, several challenges remain, such as problems with team teaching, budget constraints, and low enrollments. Remaining tasks include modifying overly ambitious plans, developing strategies for offering the Latino course as part of a pluralism requirement, creating a workshop on faculty development, and increasing the diversity of library holdings.

Schneider, L. *Education for the Twenty-First Century: Multidisciplinary General Education Liberal Arts Project in Science and the Humanities—Final Report*. New York: Nassau Community College, 1996. 209 pp. (ED 413 954)

Nassau Community College's Leadership Opportunity in Science and Humanities Education grant began in January 1993 and ended in June 1996. As part of a new, innovative joint-funding effort by the Fund for the Improvement of Postsecondary Education, the National Endowment for the Humanities, and the National Science Foundation (NSF), the purpose of the project was to motivate improvement of the liberal arts program of study at Nassau Community College, both to integrate better the science and humanities and

to improve students' social and intellectual experience in a large commuter college. The project consisted of three components: seminars that brought faculty members from different departments together to help develop and teach three multidisciplinary courses, workshops that facilitated learning communities between sciences and humanities students, and the development of a new liberal arts course of study, focusing on learning communities and multidisciplinary courses. These seminars and courses, which may become general education requirements at the college, conveyed the faculty's integrative perspective to students. As faculty taught the three multidisciplinary courses, they assisted students in drawing contrasts and comparisons between disciplines. Based on student feedback and budget results, the project has proven to be a successful and cost-effective means of integrating disciplines and enhancing education and curriculum. In fact, this program has acted as a catalyst for three new projects at Nassau Community College: Freshman Learning Communities, a NSF Math Grant, and a pilot project to train high school teachers to work collaboratively and integrate their coursework in global studies. This document also contains extensive appendixes that include sample fliers, newsletters, surveys, course and workshop descriptions, and other project-related materials.

Cohen, A. M., Brawer, F. B., and Kozeracki, C. A. *JumpStart I Summary Report*. Report submitted to Ewing Marion Kauffman Foundation by the Center for the Study of Community Colleges, 1998. 48 pp. (ED 416 918)

This paper describes the JumpStart project, a two-year grant program initiated by the Ewing Marion Kauffman Foundation and the Center for the Study of Community Colleges to help community colleges develop entrepreneurship education efforts. An initial review of existing community college entrepreneurship programs indicates that they tend to function as adjuncts to regular business curricula, lack funding, and operate on an ad hoc basis. The JumpStart project sponsors eight community colleges selected from forty-four proposals to receive grants to provide entrepreneurship training to African Americans, Hispanics, Native Americans, and women. The final section provides an evaluation of the project based on surveys of the colleges and their communities. This section reports that programs requiring students to register for a set of sequential classes created better networks and had better developed classes than those offering stand-alone modules. Appendixes provide project letters and forms, a list of responding colleges, and an agenda from a project meeting held in 1995.

New Technologies

Packer, A. and Mathias, E. "Proving a Concept." *Community College Journal*, 1996, 66 (2), 38-41.

This article describes a national project to unite businesses and community colleges in the production of CD-ROM instructional materials

addressing twenty-two workplace competencies in sixteen modules. The partnership began with educators and employers meeting to define standards and determine curriculum. They recommended that all curricula should be able to serve diverse populations, including underemployed older workers; consistent with the curricula of both high schools and four-year colleges; integrated with existing academic programs in the current community college structure; and able to use technology in delivering instruction. The program is currently in the proof-of-concept phase, in which five community colleges are creating technology-based teaching modules for nine competencies and infusing them into existing programs. The article concludes by outlining the benefits to each of the constituencies of the program: students, faculty, employers, and the community colleges.

Balch, D. E., and Patino, I. F. "Learning Online: A Twentieth Century Zen Experience." Paper presented at the Annual Meeting of Criminal Justice Sciences, Mar. 11-15, 1997. 12 pp. (ED 410 991)

California's Rio Honda Community College began developing an on-line curriculum to address rapidly approaching external changes affecting education and training. These changes included reduced funding for expansion, increased needs for in-service training, greater numbers of adult students, and the growth of computer technologies and the Internet. Current distance learning applications allow colleges to combine new roles for teachers and learners, new learning paradigms, and technology that increases speed and accessibility. In developing the new program, however, planners at Rio Honda faced immediate resistance to change among faculty and staff. In addition, the following issues and obstacles had to be addressed: (1) gaining the support of key administrators; (2) convincing faculty, the academic senate, and the college's curriculum committee that distance learners would receive the same support and quality instruction as on-campus learners; (3) obtaining the support and assistance of colleagues in the target department; (4) assessing student needs and piloting courses; (5) maintaining adequate technology and deciding on elements to be implemented; and (6) allowing sufficient time to implement the program. The obstacles were overcome, however, and as of 1997, twenty-four Web-based professional update courses for peace officer education were offered through the college's public service department. The course Web pages include course titles, descriptions, learning goals, activities, assignments, and links to other Internet resources.

Parsons, M. H. "Diversity by Design: Technology, Teamwork, and Teaching." Paper presented at the Eleventh Annual ERCBEC: Total Quality Education Conference, Mar. 19, 1998. 14 pp. (ED 416 939)

Significant changes in the educational environment have inspired structural and functional redefinitions to increase institutional competitiveness. To flourish, colleges now must be adaptive, flexible, responsive, and innovative, especially in their application of new technology. They must focus

on workforce development as well as general education to develop human and technological potential in students. Colleges must respond to change holistically, using all aspects of the organization—a paradigm known as *discontinuity*. To remain viable, colleges need to redesign their academic structures and functions (including curriculum) to accommodate these changes. The paper suggests a five-factor design for program reengineering: (1) align with market goals, (2) facilitate a continuous process of program development, (3) identify return-on-investment measures, (4) restructure traditional service delivery, and (5) foster a campus learning community for faculty, staff, and students. Ultimately, students are the *raison d'être* of educational institutions, and colleges must always provide the best products and services at a realistic cost to those who are eager for them.

Jacobsen, D. M., and Mueller, J. H. "Creating a Collaborative Electronic Community of Education." Paper contributed to the Teaching in the Community Colleges Online Conference, Apr. 7–9, 1998. 12 pp. (ED 426 732)

This paper discusses the design and outcomes of an undergraduate education course at the University of Calgary that used current communication and computer technology. A collaborative, electronic community was developed by students preparing for elementary, secondary, and even post-secondary teaching careers who were studying educational technology in order to publish, exchange, and consider emerging ideas about the use of computers for teaching and learning. In response to research and theoretical readings, as well as discussions about the use of computers in education and by society, students posted their coursework on individual World Wide Web pages in order to increase the audience for their ideas and generate response. Descriptions of the course of study, course participants, and coursework assigned, including the use of electronic portfolios, laboratory work, and examinations, are included. The technology integration plan, student feedback, benefits and drawbacks of the program, effects on writing, and effects on future teaching careers are also discussed. The course instructors believe that this teaching method, especially the electronic portfolio assignment, contributed to the development of highly marketable educational technology skills among participating students.

Guenther, A. H., and Hull, D. *Fast Track to Currency Through Curriculum Morphing*. Waco, Tex.: Center for Occupational Research and Development, 1998. 8 pp. (ED 420 339)

Technological advances present many challenges and opportunities in education. This article investigates the question, How do we ensure that our curricula are adequately current in an emerging technology? The authors use the example of Photonics (defined as the generation, manipulation, transport, detection, and use of light information and energy whose quantum unit is the photon) to illustrate the need for up-to-date educational curricula. Cooperation between education and industry in all facets of training

is critical to meeting the demand of curricular currency. Group partnering, external communication, and sharing of information and expenses are integral to an easy interchange among independent parties. Although this facilitates the exchange of ideas, a method for timely development and implementation of curriculum is also necessary in order to keep up with the rapid pace of change. The authors suggest curriculum morphing, an interactive network wherein practitioners view curriculum materials on the Web and collaborate with each other to suggest changes. Once approved by experts in the field, these changes are implemented into the Web-based version of the curriculum.

Dynamics of Teaching and Learning (Learning Styles and Teaching Strategies)

Hull, D., and Soulders, J. C. "The Coming Challenge: Are Community Colleges Ready for the New Wave of Contextual Learners?" *Community College Journal*, 1996, 67 (2), 15-17.

This article defines contextual learning as presenting new information to students in familiar contexts, a learning style that is the foundation of numerous "tech prep" programs around the country. The authors argue that high schools throughout the nation have historically neglected a large group of students by integrating applied academic courses into their curriculum; it puts pressure on the community colleges to prepare for contextual learners as they pursue postsecondary education. The article goes on to describe elements of contextual learning, its application in the classroom, and ways that community colleges can incorporate contextual learning into their curriculum and articulation schemes.

Knitzer, F. C. "Articulation and Transfer: Critical Contributions to Lifelong Learning—Discussion Supplement." Paper presented at Participation Issues and Lifelong Learning, sponsored by APEC-HURDIT Lifelong Learning Project, Taipei, Taiwan, Nov. 1997. 15 pp. (ED 411 900)

This supplement to Frederick Kintzer's discussion session "Participation Issues and Lifelong Learning" provides definitions and a description of the rise of lifelong learning and short-cycle higher education. Three futures are predicted for short-cycle higher education systems: institutions are likely to modify courses and strengthen distance learning and prior learning delivery techniques for growing numbers of adult reentry students; industry will become increasingly involved in the delivery and curriculum of postsecondary education through cooperative agreements; and technology will expedite nontraditional and nonsponsored education, including the computerized "banking" of academic credits. The desire for Asia Pacific Economic Cooperation countries to modify curricula and course design to include interdisciplinary approaches, distance learning, and professional

training are also described. It is concluded that lifelong education must be supported both nationally and statewide.

Leitzel, T. C., and Vogler, D. E. "Course Planning and Testing Decisions in Criterion-References Situations." *Community College Journal of Research and Practice*, 1997, 21 (3), 305-318.

The authors discuss aligning curriculum content with appropriate testing types. Findings from a survey of thirty Virginia Community College faculty are presented. They indicate that the faculty did not plan and test congruently. Also, faculty tended to overtest content and, although they were *effective* in their selection of test types (test type thoroughly tests students' knowledge of concepts), they proved not to be *efficient* in test selection (test type easily solicits responses from students). Because community colleges are institutions regarded for their emphasis on teaching, it is critical to emphasize and inform faculty about proper curriculum development, articulation of course goals, and utilization of proper test types for course outcomes. This study successfully tested formulas that could be used to evaluate the match between curriculum and method of testing for community college faculty.

New Hampshire Community Technical Colleges. *Pedagogy Journal*, 1997, 4.

This annual series volume contains sixteen articles offering practical pedagogical ideas from faculty at New Hampshire technical colleges. Prefatory matter includes a discussion of faculty as curricular change agents through small but significant changes such as leadership building and scenario-based learning, and in more dramatic pedagogical transformations, including self-paced curriculum and catering to student learning styles. Articles included in the journal discuss the challenges and successes faculty face throughout these revisions to the curriculum. Specific examples consist of teaching science and humanities in a scenario-based learning environment, self-paced and self-directed study as a teaching methodology in a nursing program, the incorporation of learning styles and strategies on teaching introductory chemistry, assessing student participation using performance-based curriculum, and creating a student-centered learning environment. The volume concludes with a piece by the pedagogy committee of the New Hampshire technical colleges in which they map out a "Pedagogy Blueprint for the Twenty-First Century." The contact information for all of the authors and journal contributors are included in an effort to facilitate communication regarding curricular changes and innovations.

JENNIFER RINELLA KEUP is a doctoral student in higher education and organizational change at University of California, Los Angeles.

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FROM THE EDITOR

Because of both the number of students it serves and its unique responsiveness, the community college curriculum is an important and worthwhile object of study. To this end, the purpose of this volume of *New Directions for Community Colleges* is to explore a broad range of characteristics of that curriculum. The authors of this volume have studied aspects of the community college curriculum using a data set collected in 1998 by the Center for the Study of Community Colleges. This study was informed by previous curriculum studies conducted by the Center, dating back to 1975. As an update to an earlier *New Directions for Community Colleges* volume, this collection emphasizes trends and changes that have emerged since the last survey installment.

The information in this collection presents a picture of the national community college curriculum. Although each college may have its own unique curricular qualities, overarching trends in course offerings across institutions are evident. The contents of this volume illustrate that while new fields of study and new modes of delivery are emerging, traditional liberal arts course offerings remain a stabilizing force.

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